PREVIEW: SEYBOLD DESKTOP PUBLISHING SEMINAR

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California's Computer Magazine
SEPT. 1988 • 47

MICROTIMES

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- Zenith SuperSport
- Kaypro 200+

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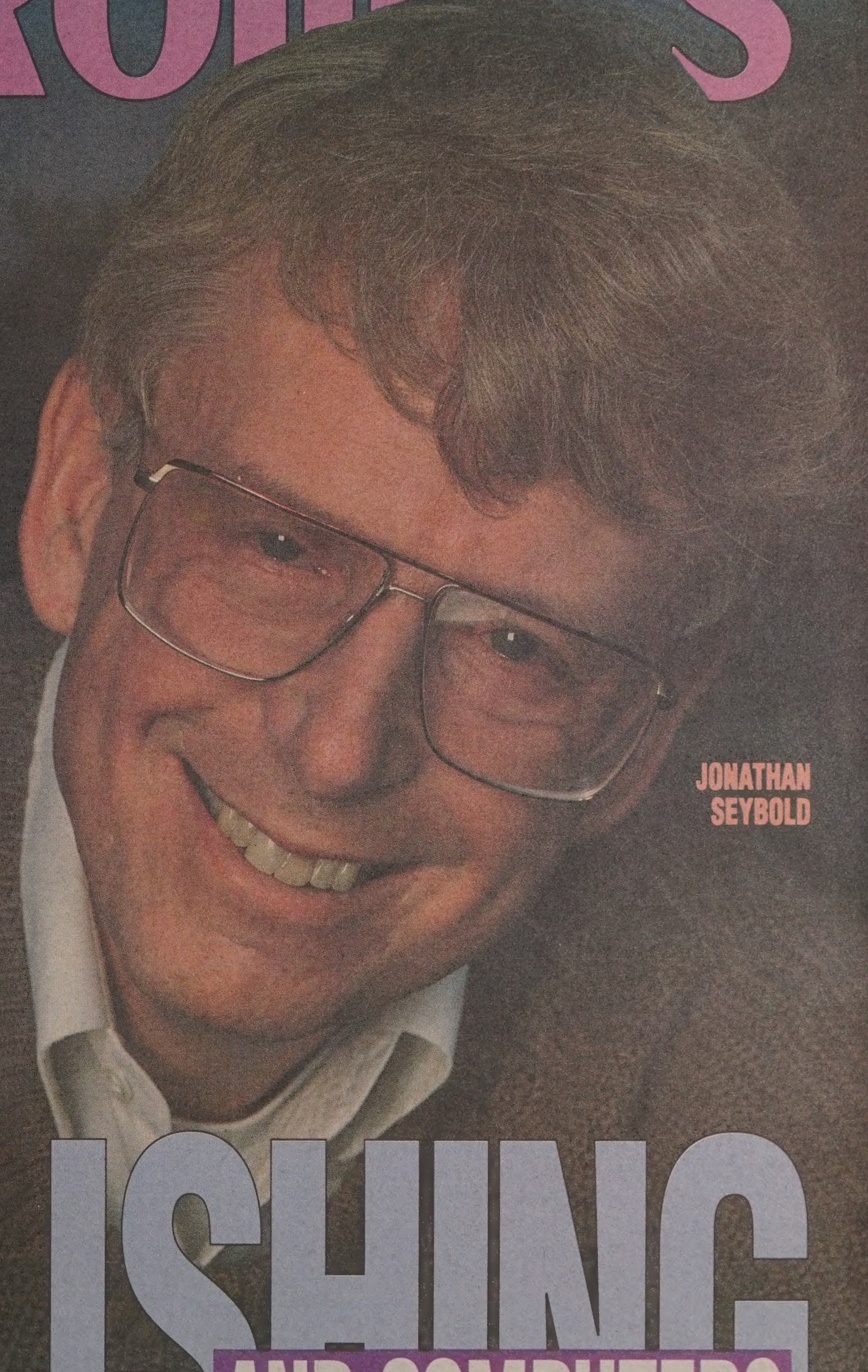


JONATHAN SEYBOLD

PUBLISHING AND COMPUTERS

JONATHAN SEYBOLD ON STANDARDS, INTERFACES & COMPUTERS OF THE '90s

Designed with you in mind

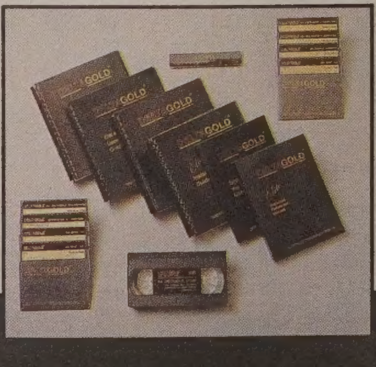
If you were to design the ideal computer system, it would be designed with your convenience, your needs and budget in mind. The style would be the same taste you have in other electronic components such as stereos, TV's and VCR's – the high-tech look.

This is the concept of the **Delta Gold** line of computers. The **Delta Gold** family features three systems – The Elite (8088, 10 MHz), Prestige (286, 10 MHz) and the Premier (386, 16 MHz). All three computer are at the peak of speed performance.

The **Delta Gold** Computers include video, serial/parallel, and clock circuitry as a part of the motherboard. They are packaged with monochrome, CGA or EGA monitors making even the minimal configurations fully functioning units.

Also included is an integrated software package for word processing, spreadsheets, database management, DOS 3.2, GW Basic, and a 25 minute instructional video, to better clarify those first time questions. An easy front access quick reference DOS guide and digital clock add the final touches to these unbeatably priced systems. Your mind will be at ease with an 18 month warranty, and a toll-free technical support hot line.

The fact is the Delta Gold Systems are the obvious choice for you.



Specifications of the Standard System

Model	Elite	Prestige	Premier
Microprocessor	• 8 -bit Intel 8088 Turbo, 4.77 or 10 MHz	• 16-bit Intel 80286, 6 or 10 MHz	• 32-bit Intel 80386, 16 MHz
Co-processor	• Socket for 8087 match co-processor	• Socket for 80287 math co-processor	• Socket for 80387 math co-processor
Memory	• 512KB standard, socketed RAM (Zero Wait State), expandable to 768KB	• 512KB standard, expandable to 1 MB on motherboard	• 1MB standard on board RAM (Zero Wait States & fully utilized)
Storage Device	• One 5.25" 360K, half-height drive • Optional space for internal 3½" hard disk drive	• 5.25" half-height, 1.2MB drive • Space for 3 half-height storage devices • Optional space for internal 3.5" hard disk drive	• Standard 1.2 MB half-height drive • 40MB hard disk drive • Space for 5 half-height storage devices
Expansion Slots	• 4 expansion slots	• 8 expansion slots	• 8 expansion slots
Video Adapter	• Hercules equivalent, CGA, MGA, plantronics on motherboard	• MGA (Mono/color Hercules equivalent graphics card)	• EGA (enhanced graphies adapter card with Hercules capability)
Clock/Calendar	• Real time clock/calendar with battery back-up on motherboard	• Real time clock/calendar with battery back-up on motherboard	• Real time clock/calendar with battery back-up on motherboard
I/O Connections	• One serial communications port • One parallel port on motherboard	• 2 serial communications ports (RS-232C) • One parallel port	• 2 serial communications ports • One parallel printer port
Clicking Keyboard	• 84 key Selectric-style keyboard	• 101-key AT layout, Selectric-style	• 101 key AT layout, Selectric-style
Display Features	• 12" high resolution monochrome monitor with tilt swivel	• 12" high resolution monochrome monitor with tilt swivel	• 14" EGA color monitor with tilt swivel
Controller Board	• On motherboard	• Western Digital Winchester and floppy disk controller card	• Western Digital Winchester and floppy disk controller card

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10 MHz 0 Wait State 286 System

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- * 6/10 MHz switchable CPU
- * 0 or 1 Wait State selectable
- * Built-in Clock calendar w/Battery back-up
- * 220 Watt Power Supply
- * Monographic Printer Card
- * 360K/720K/1.2MB Hi-Dens. Floppy Controller
- • 1.2MB Fujitsu Floppy Drive
- * High Resolution Monochrome Monitor
- * AT/XT Keyboard
- * 48 hrs. Burn-In

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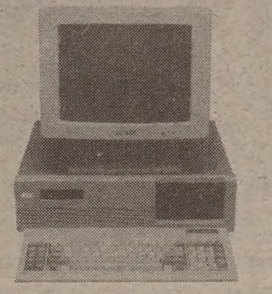
16 MHz 286 System



- * 512K on 1Meg Mother Board
- * 6/12 MHz switchable CPU running equivalent to 16 MHz at 0 Wait State
- * Built-in Clock Calendar w/Battery Back-up
- * 220 Watt Power Supply
- * Monographic Printer Card
- * 360K/720K/1.2MB Hi-Dens. Floppy Controller
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- * High Resolution Monochrome Monitor
- * AT/XT Keyboard
- * 48 hrs. Burn-In

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* Serial/Parallel/Game Card for AT/XT	$49
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* RS232 + Clock for XT	$39
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* Parallel Printer Card	$15

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* 150 Watt for XT	$47
* 180 Watt for Baby AT	$55
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- * 150 Watt Power Supply
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- * 360K Fujitsu Floppy Drive w/Controller
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- * AT Style Keyboard
- * 48 hrs. Burn-In

$469

Mother Boards

* 386 8/16 MHz (running at 21 MHz)	$1098
* AT 6/12 0 Wait running at 16 MHz	$339
* AT 6/10 0 Wait	$255
* AT Baby 6/12 "0" Wait State	$335
* XT 4/10 MHz	$79
* XT 10 MHz w/Disk I/O	$129

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* 2 Dr. AT/XT 360K/720K/1.2MB Fl.Contr.	$39
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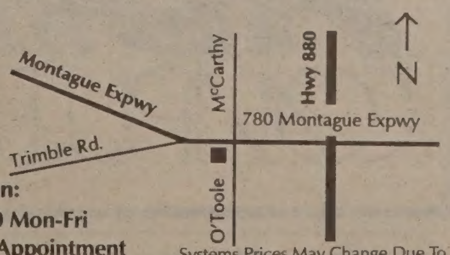

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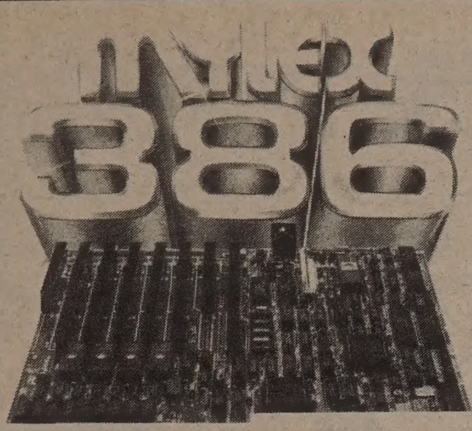

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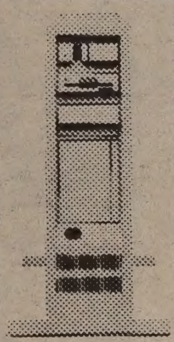

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SEPTEMBER 1988 ISSUE #47

MICROTIMES™

Cover and contents photos: Ann Summa

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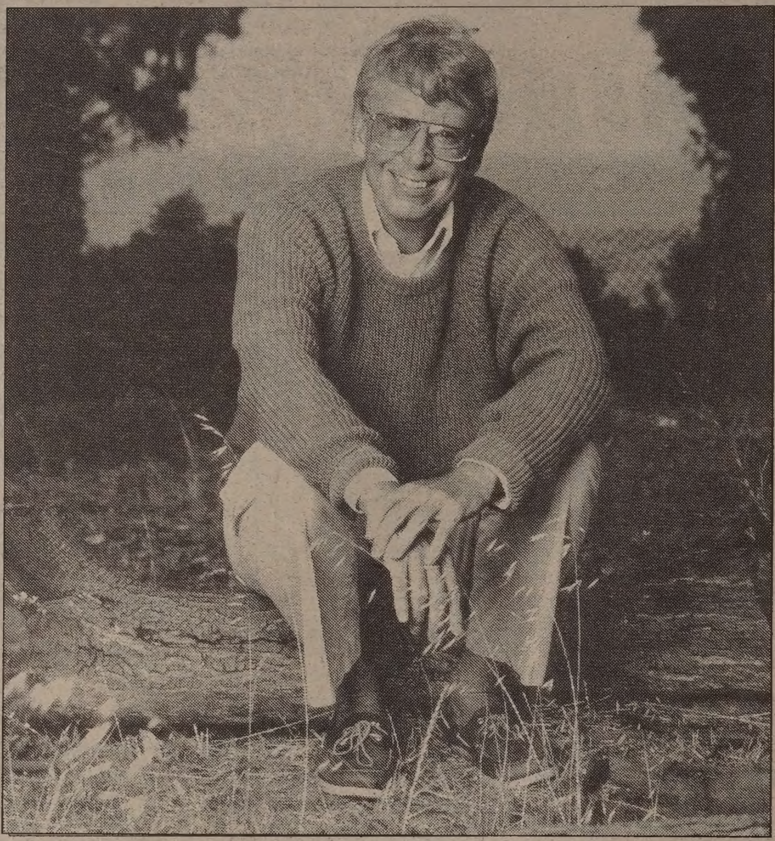

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{rodigy, a joint venture of IBM and Sears, hopes to bring computer-based telecomm services into the homes of America.

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Atari ST
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A bad case of betaware in the ST world.

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Amiga
By Matthew Leeds
Something big seems to be going on at Epyx, but nobody's talking.

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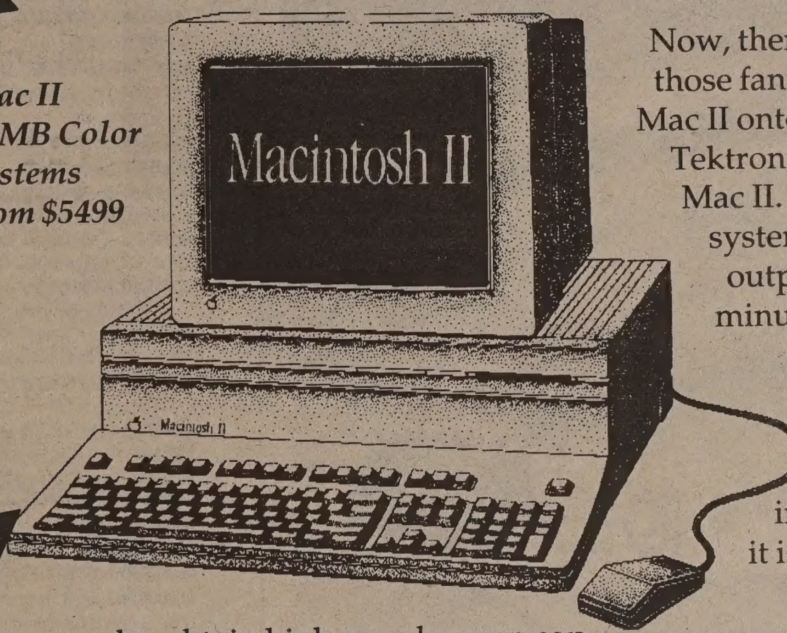

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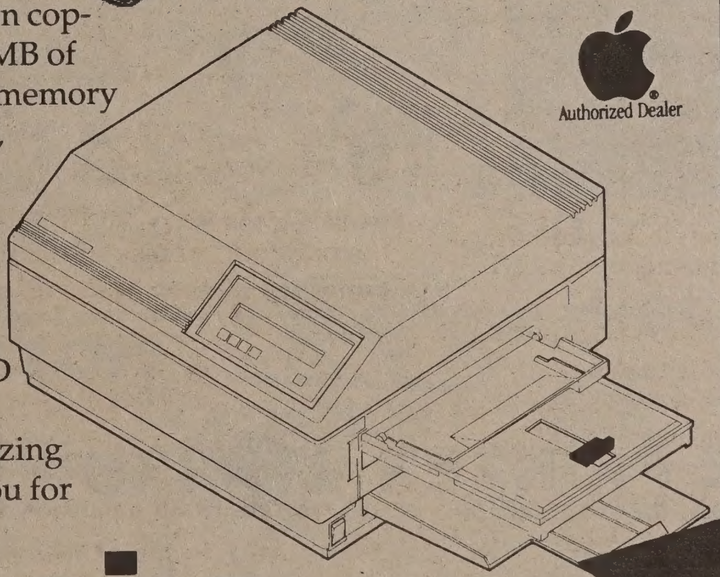

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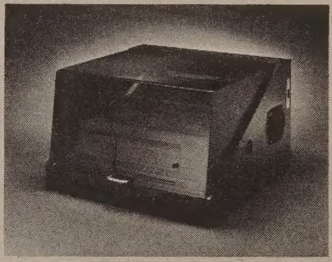

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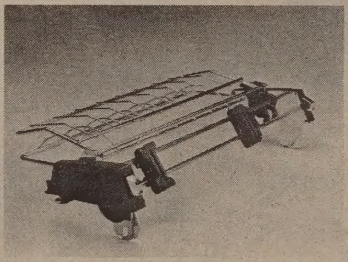

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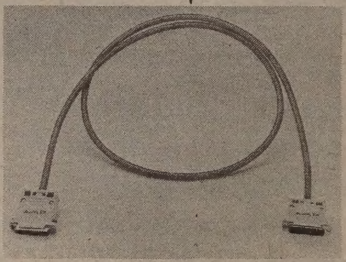

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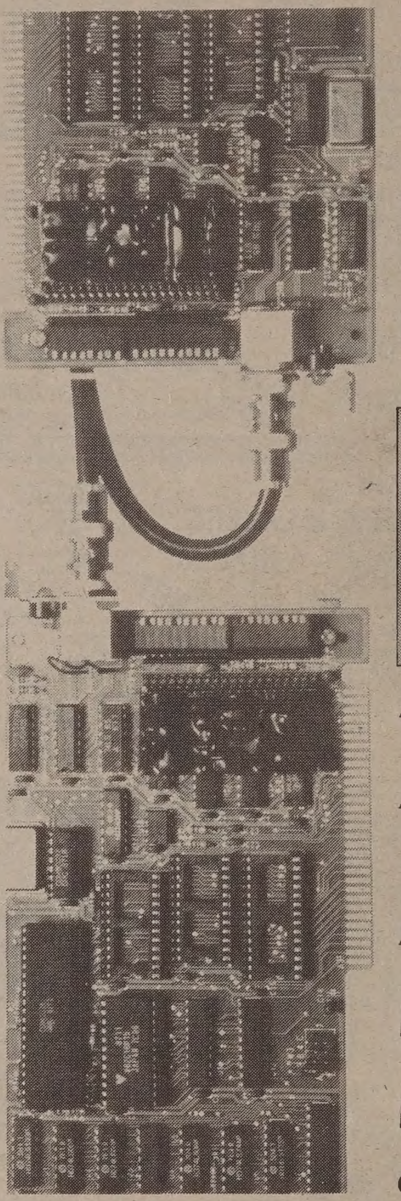

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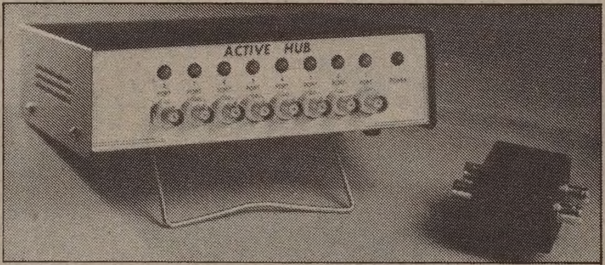

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August 21 Computer Swap. Santa Clara County Fairgrounds, San Jose. Computer Swap America. (415) 366-9162.

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August 21 – 26 SCO Forum '88 For Developers and Resellers. University of California, Santa Cruz. Santa Cruz Operation, (408) 425-7222.

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August 22 – 23 Four Short Courses On Systems Development: A PC Based Methodology. Sunnyvale. Contact: TCA Training Institute at (408) 737-2665.

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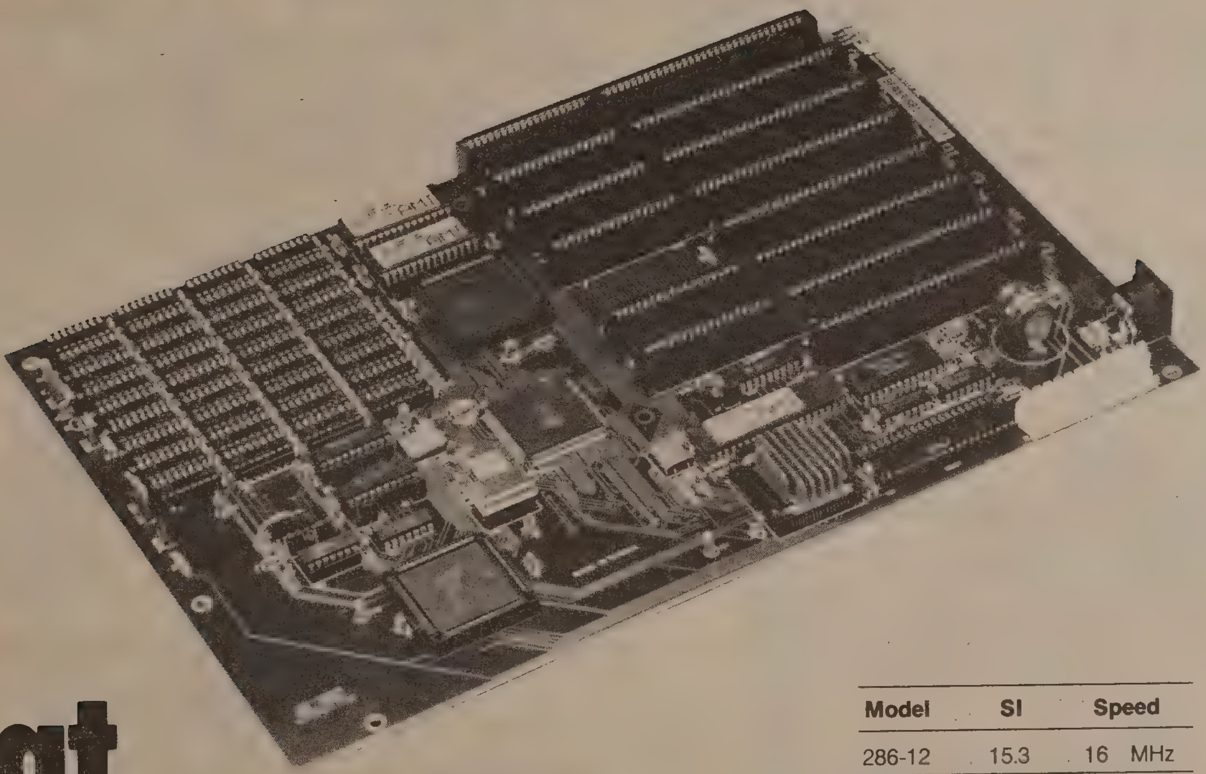

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August 25 How To Build Your Own XT/AT Compatible Computer. Fort Mason Center, San Francisco. Call: Peter R. Vasilev, (415) 284-1024.

August 27 Computer Swap. Santa Clara Convention Center. Microshows. Call: 1-800 433-7469.

August 27 Build And Explore a 286/386 Clone. Fort Mason Center, San Franisco. Edwin Rutsch. Call: (415) 626-3549.

August 29 – 30 Four Short Courses On Systems Development: A PC Based Methodology. San Francisco. Contact: TCA Training Institute at (408) 737-2665.

August 29 – 30 DataFlex Programmer's Class. San Jose. Goldcoast Software. Call: (415) 964-1500.

August 29 – 31. Scientific Vector And Parallel Processing: Principles And Practices In Programming Supercomputers. Techmart, Santa Clara. University of California Extension, Santa Cruz. Call: Karin Poklin, (408) 429-4535.

September 7 ISDN-Integrated Systems Digital Network. Holiday Inn, Foster City. Professionals in Telecommunications. Call:Debra K. Birkholz, (415) 964-4456.

September 7 Maintenance And Repair Of Microcomputers For Beginners Course. Oakland. Merritt College Electronics. Call: (415) 436-2483, or 436-2427.

September 8 SEF HyperCard SIG With Bill Atkinson. 1875 Embarcadero, Palo Alto. Software Entrepreneur's Forum. Call Barbara Cass, (415) 854-7219.

September 8 Time Line Workshop (Version 2.0). San Francisco. Contact Sherri Davis, Symantec-Breakthrough Software, (415) 898-1919.

September 8 Introduction To Solomon. Cupertino. ProfitLine Computers. Call: (408) 446-5511.

September 8 – 9 Computer Game Developer's Conference. Milpitas Holiday Inn, Milpitas. The Journal of Computer Game Design. Write: 5251 Sierra Road, San Jose, CA 95132.

September 10 – 11 MIDI Expo West. Anaheim Marriott, Anaheim. Music, Computers & Software magazine. Call: Tony Scalisi, (203) 259-5734.

September 12 – 15 NCGA Mapping & Geographic Information Systems '88 Conference And Expo-

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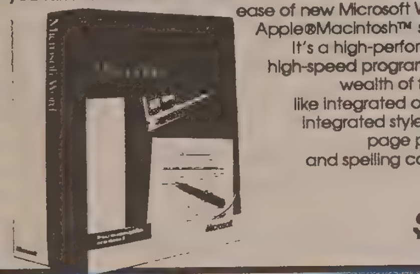

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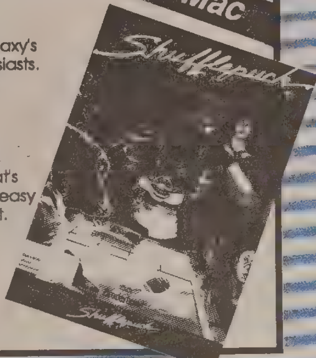

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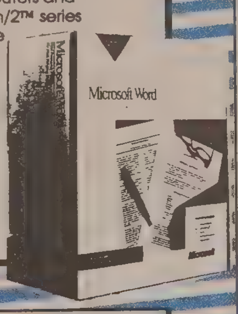

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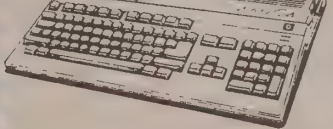

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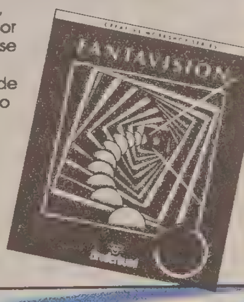

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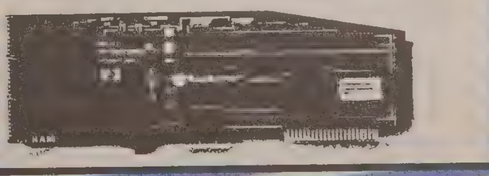

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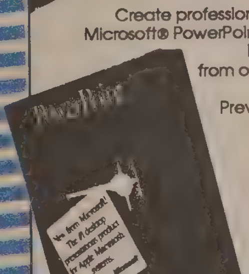

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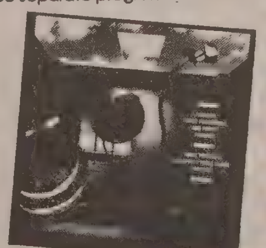

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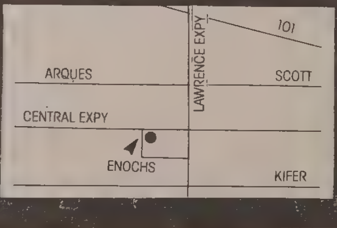

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sition. Philadelphia Civic Center, Philadelphia. National Computer Graphics Association. Call: (703) 698-9600.

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September 13 – 16 Integrated Voice/Data Communications & ISDN Course. Palo Alto Integrated Computer Systems Call: 1-800 267-7014.

September 13 – 16 Digital Communication Systems: Design & Applications Course. San Francisco Integrated Computer Systems Call: 1-800-267-7014.

September 14 – 17 Seybold Desktop Publishing Conference. Santa Clara Convention Center. Seybold Seminars (213) 457-5850.

September 14 MS-DOS Training Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

September 16 Time Line Workshop (Transition to Version 3.0). San Francisco. Contact Sherri Davis, Symantec-Breakthrough Software, (415) 898-1919.

September 17. 1988 Computer Swap. Oakland Convention Center, Oakland Microshows. Call: 1-800-433-7469.

September 18 – 19 Computer Game Developer's Conference II. Milpitas Inn, Milpitas. The Journal of Computer Game Design. Write: The Journal of Computer Game Design, 5251 Sierra Road, San Jose, CA 95132.

September 19 80386 Add-in Boards. Fort Mason Center, San Francisco. SF PC Users Group. Call (415) 221-9166.

September 19 – 21 Eurofax '88. Amsterdam, The Netherlands. CAP International. Call Martha Johnson, (617) 982-9500.

September 21 Desktop Publishing With Ventura Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

September 21 Getting Started With WordPerfect Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

September 22 – 23 Time Line Workshop (Version 3.0). San Francisco. Contact Sherri Davis, Symantec-Breakthrough Software, (415) 898-1919.

September 22 How To Build Your Own XT/AT Compatible Computer. Fort Mason Center, San Francisco. Call: (415) 284-1024.

September 24 A Seminar On Music Visualization — Beyond MTV! San Francisco. Suite 3-D. Call: (415) 882-7063.

September 24 Computer Swap. Santa Clara County Fairgrounds, San Jose. Computer Swap America. (415) 366-9162.

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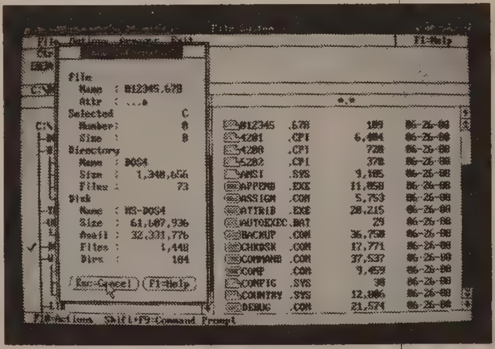

Microsoft announces new version of DOS. See page 21.

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Paul Hoffman is an industry analyst who has been covering microcomputer technology for ten years. He can be reached on USENET (phoffman@well) and MCI Mail (264-3171). He also writes popular microcomputer books.

Hewlett-Packard Responds To Apple's Suit

Setting the stage for major tests of the current copyright law as it relates to software and computer screen displays, Hewlett-Packard has counter-sued Apple, claiming that not only was Apple's copyright not valid, but that Apple misled the U.S. Copyright Office when it applied for copyrights for the Macintosh screen displays.

The countersuit brings up many interesting legal issues, such as whether Apple should have applied for patents instead of copyrights, how much of a display must be original enough to claim ownership, and, if Apple's copyrights are valid, whether having such copyrights might be considered a monopoly and therefore illegal under the Sherman Anti-Trust Act. Hewlett-Packard distanced itself from the agreement which Microsoft says protected it from Apple's suit, saying that Apple illegally coerced Microsoft to sign the agreement. The first major rulings in the case are expected this fall.

Lotus Delays Next Version Of 1-2-3, Kills Modern Jazz

Banking on the desirability of an application that runs under a wide variety of operating systems, Lotus has delayed the release of *1-2-3* version 3 until late fall and has stopped development of its already-announced *Modern Jazz* program for the Macintosh. *1-2-3* version 3 is expected to run under the MS-DOS, OS/2, Macintosh and UNIX operating systems. Lotus will also release a version of *1-2-3* for IBM mainframes, according to long-standing joint development plans between Lotus and IBM.

The new version of *1-2-3* will be able to address up to 32 megabytes of memory running under MS-DOS, according to Lotus. This means that people who need more memory for their spreadsheets will not be forced to move to OS/2 or a competing spreadsheet application. Lotus believes that MS-DOS will be the dominant operating system for many years and will base its development plans around it, not OS/2 or UNIX.

Modern Jazz, which was supposed to be available during spring this year, was killed off due to the potential for competition with the Macintosh version of *1-2-3,* according to Lotus employees. Many of the workers on the *Modern Jazz* project were reassigned to work on the Macintosh version of *1-2-3,* although many left the company after the project was canned so close to release.

'Zoomracks' Owner Threatens HyperCard Developers With Patent

Raising more than a few eyebrows, Quickview Systems, developer of PC-based *Zoomracks* software, has threatened developers of stackware for Apple's *HyperCard* with lawsuits if they appear to infringe on Quickview's patent on card-and-rack display of information. In letters sent to many stackware developers and ads taken out in Macintosh magazines, Quickview president Paul Heckel has claimed that his patent on the rack metaphor prevents *HyperCard* developers from displaying more than one card "as a rack" without paying him royalties. Many software developers have questioned his extension of "racks" to "stacks," and have said that they are ignoring his demands.

The *Zoomracks* program allows you to organize data on cards that you store in "racks" on the screen. You can see the top lines of the cards in the rack, much as you can see the names on timecards in a rack. The patent apparently covers the use of the rack metaphor.

HyperCard, however, only lets you view one card at a time. Although you can visually represent a stack of cards with a drawing, that drawing does not show the tops of the cards in the fashion that the rack that *Zoomracks* uses.

Many stackware developers said that they felt that Heckel was simply trying to cash in on the popularity of *HyperCard* and that, since their software did not resemble a "rack," they had no intention of signing any license with Quickview.

Micron And Atari Settle DRAM Suit

In an out-of-court settlement, Micron Technology and Atari have settled the suit Atari brought earlier this year. Atari had charged that Micron Technology had agreed to sell Atari DRAM chips at a low price and reneged on the contract. The terms of the settlement are confidential, according to both parties.

The DRAM situation is still critical, according to almost everyone in the computer manufacturing business. Atari claims that it's cut back on its intended production this year due to the lack of DRAM. According to police in Silicon Valley, DRAM theft and fraud have skyrocketed in the last few months. Apple has stopped filling developers' orders for DRAM for the foreseeable future, suggesting that they buy the memory modules they need on the open market. There are also widespread reports of stores removing DRAM chips from peripheral boards and putting them in computers.

IBM Rattles Sabers On RISC Chip Patents

IBM has begun sending letters to manufacturers of RISC chips indicating that it believes they may be infringing upon IBM patents. Although it is unclear what rights IBM owns under its RISC chip patents, many people in the industry feel that IBM may be

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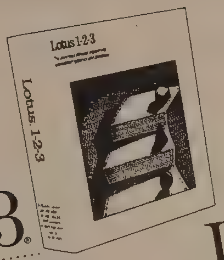

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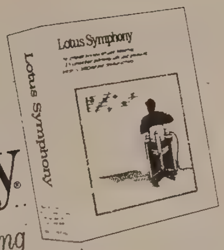

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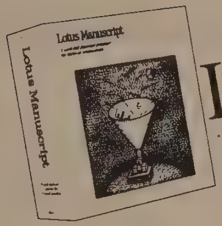

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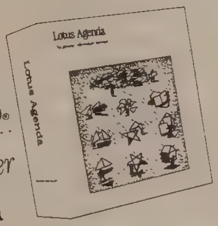

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overly reliant on early patents that would not stand up to a court test. IBM began producing RISC chips over ten years ago and has many patents that relate to the structure of the processor. However, the validity of a patent can be challenged, and many patents issued before a technology is well understood are later overturned by courts.

Although Sun Microsystems admits to having received the letter from IBM expressing "concern," Sun officials refused to say how they intended to respond. Other RISC chip manufacturers also would not comment on the letter.

Claris Acquires Nashoba Systems

Bolstering its line of Macintosh software, Claris (a spinoff from Apple Computer) recently bought Nashoba Systems, manufacturer of the best-selling *FileMaker Plus* program. Until the acquisition, Claris had no database management system for the Macintosh; now it has one of the most popular ones. Although *FileMaker* is not as powerful as high-end database management systems like *4th Dimension* and *Helix*, it costs much less. The newest version has multiuser network capabilities that allow many people to access the same database at the same time. Claris will repackage the system and begin selling it by the end of the summer.

PCW Communications Axes Macintosh Today

Macintosh Today, a popular newsmagazine devoted to the Macintosh, published its final issue last month. Although PCW Communications always intended to make *Macintosh Today* weekly, it never released regular weekly issues. PCW Communications also publishes *Macworld*, which it says is doing extremely well.

Macintosh Today had heavy competition from *MacWeek*, which was able to go weekly last year and was thus able to pick up many advertisers early on. Another problem that *Macintosh Today* faced was poor circulation: the free newspaper was only sent to a limited number of subscribers, and people applying for a subscription were never told whether or not they would be able to get the magazine. Many early subscribers had their subscriptions cut off in January without notice.

Apple Restructures Yet Again, Forms "Customer Satisfaction Group"

Without admitting to falling prey to California-speak, Apple has created a new department responsible for customer service, support and distribution called "Customer Satisfaction Group." However, the group will not be responsible for marketing; product marketing will be handled by the Research and Development Group, under the direction of Jean-Louis Gassee. Apple employees took the move with a fair amount of humor, given that Apple seems to have been in a constant state of reorganization for the last nine months. Although fewer people now know who their immediate supervisor is, most employees and financial analysts feel that putting the customer-oriented groups under one executive would reduce the amount of time it takes for a customer with a question or complaint to get it resolved.

Farallon Merges With WOS Data

Hardware and software firms often make joint marketing agreements but rarely merge. Countering that trend, Farallon Computing, makers of the PhoneNET wiring hardware for AppleTalk, and WOS Data Systems, makers of a multi-user accounting package and the *Timbuktu* network collaborative software for the Macintosh, recently merged and will continue under Farallon's name.

The merger of two small but popular Macintosh companies comes at a time when large corporations seeking a presence in the Macintosh market are buying smaller companies with successful products. PhoneNET is the most popular hardware wiring system for connecting Macintoshes due to its low cost, and *Timbuktu* is rapidly becoming more popular as a method for system administrators to solve user problems across a network by viewing an active copy of a user's screen. WOS Data will continue to operate from Lawrence, Kansas.

Windows/Presentation Manager Association Forms

Hoping to help push the use of Microsoft *Windows* and the OS/2 Presentation Manager, many major software companies have joined resources to form the Windows/Presentation Manager Association. The group will help support development of *Windows* and Presentation Manager software, as well as better support hardware that can be used with the environments. The non-profit group will also help retailers and other vendors to promote *Windows* and Presentation Manager software. The group will help corporate and end users to promote and support users of their software. WPMA, 617/277-9648.

Major Clone Maker Starts Leasing Program

Dell Computer, one of the largest retailers of PC and PS/2 clones, hopes to become one of the largest leasing companies with its introduction of equipment leasing division. Noted for its low prices and high performance computers, Dell now wants to be thought of as the complete solution for corporate customers. Many corporations lease their microcomputers in order to keep up on the technology and to take advantage of the tax benefits of leasing, and Dell could easily make a strong showing in this market by offering services similar to the other large leasing firms.

Dell also intends to undercut its competition by having lower-cost leasing. A 20 MHz AT-clone with VGA color monitor and 40 megabyte hard disk, printer and service contract would lease for less than $175 per month, according to the company. Dell Computer, 800/727-8000.

Borland Buys Spreadsheet Technology From Surpass

Borland announced its intention to beef up its popular *Quattro* spreadsheet by buying technology rights from Surpass Software, makers of the *Surpass* spreadsheet program. The acquisition includes the source code and engineering talents from the company, according to Borland. Borland will upgrade current *Surpass* users to *Quattro* for $50. The new version will have features from both packages, and will incorporate the underlying software techniques of both systems, according to *Surpass* developers. Surpass Software chairman Seymour Rubinstein was previously president of MicroPro, makers of *WordStar.*

Microrim Gives Developers More Ways To Distribute Applications

Taking advantage of Ashton-Tate's delay of *dBASE IV*, Microrim has made it easier for developers to distribute applications written in *R:BASE*. Microrim has started selling 5-user runtime libraries so that end users can run applications developed with *R:BASE* without having to own a copy of the pro-

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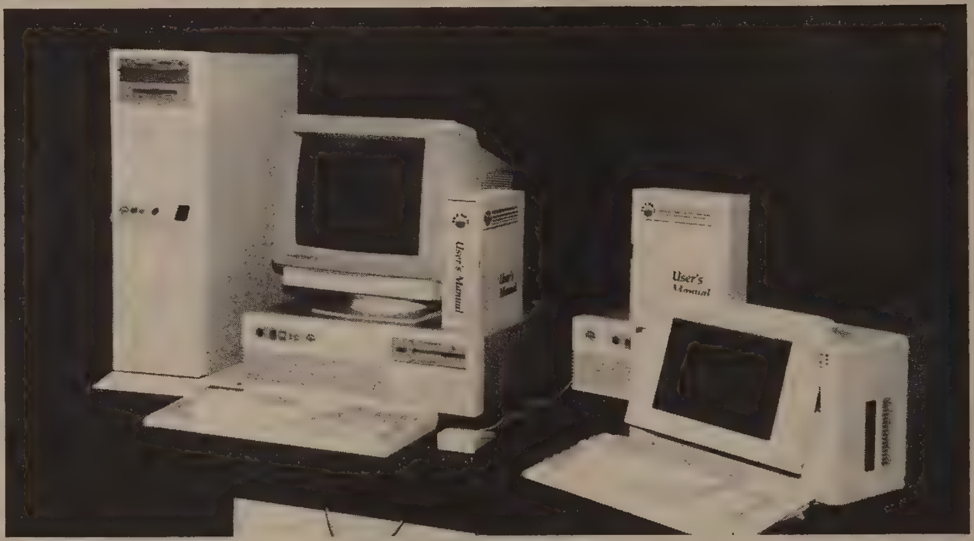

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MAXX-386 Cache Plus	5:20	3:64	3:70
AST-386	4:23	4:50	3:50
AT&T-386	4:16	3:55	3:23
Compaq 386	4:99	1:42	3:67
IBM PS/2	3:89	3:12	3:06
HP-Vectra	4:00	3:08	3:28

Test done by HIMS at their lab and compared with InfoWorld May Issue on 386.

Standard Features	MAXX-286 Cache Plus 0 Wait	MAXX-386 0 Wait	MAXX-286 Plus 0 Wait	MAXX-286-16 Plus 0 Wait
Processor	80386-16/8 or 20	80386-16/4.77 or 20	8/12 MHz	8/16 MHz
RAM	1024 K to 8 MB	1024 K to 10 MB	1024 K to 16 MB	1024 K to 16 MB
Cache	64 K	32K (optional)		
Floppy Drive	1.2 MB, 1.44/360 KB (optional)	1.2 MB, 1.44/360 KB (optional)	1.2 MB, 1.44/360 KB (optional)	1.2 MB, 1.44/360 KB (optional)
Hard Disk Drive	44 MB up to 300 MB	44 MB up to 300 MB	44 MB up to 300 MB	44 MB up to 300 MB
Hard Disk Controller	Dual FDD/HDD	Dual FDD/HDD	Dual FDD/HDD	Dual FDD/HDD
Expansion Slots	8	8	8	8
I/O Ports	Serial/Parallel Game Port	Serial/Parallel Game Port	Serial/Parallel Game Port	Serial/Parallel Game Port
Keyboard	101 key	101 key	101 key	101 key
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IBM is a trademark of International Business Machines Corp. Compaq is a trademark of Compaq Corp. OS/2 is a trademark of MicroSoft Corporation gram. The company will also soon release a true compiler for *R:BASE* applications; the compiler will create .EXE files from applications, relieving developers from needing the run-time libraries at all. The compiler will be compatible with Microsoft languages so that programmers can create routines and libraries in other programming languages and combine them with R:*BASE* code. Microrim, 206/885-2000.

Adobe PostScript Logo For Printers

Trying to stem the tide of PostScript clones, Adobe Systems has begun allowing manufacturers to use its new logo on printers which use Adobe's PostScript interpreters. Adobe wants to differentiate between PostScript interpreters developed by other manufacturers and its own. The company has come under fire from smaller software manufacturers in recent months due to its high price on PostScript. Although there are no true PostScript clones on the market yet, many are expected within the next few months. Adobe hopes that purchasers will insist on the Adobe PostScript label from whichever printer manufacturer they buy. Manufacturers who have licensed Adobe's PostScript also hope to gain from such markings.

Product News

Microsoft Announces New Enhanced Versions

In an extremely active month for announcements, Microsoft upgraded its major operating systems and system software and made a new push into the still-active COBOL market. They also announced a new on-line technical information service run through the GEnie network.

MS-DOS version 4 will be available soon through hardware manufacturers and dealers. Its most-awaited feature is support for hard disks larger than 32 megabytes. In version 3 and previous versions of DOS, you had to split larger drives (which are now common on most AT-compatibles and 80386-based computers) into smaller partitions.

Version 4 also comes with support for the EMS 4 expanded memory standard that allows programs to use more that 640K of memory for users with special memory cards; it supports the IBM XMA expanded memory boards.

Microsoft has also included an MS-DOS command shell which is visually similar to Microsoft's Presentation Manager in OS/2. Microsoft hopes that this helps get users to migrate from MS-DOS to OS/2. Other new features include faster execution on various monitors and better support for international languages. The pricing on the new version (and any upgrade policies) are up to the individual hardware manufacturers.

The MS-DOS CD-ROM Extensions (MSCDEX) version 2 includes control software for both the original High Sierra file format as well as the new international standard version of that format, ISO 9660. This gives users greater flexibility if they use CD-ROM disks from more than one manufacturer. As part of the new standard, MSCDEX version 2 more fully supports mixing text, graphics and sound. The new extensions also support the Japanese Kanji character set.

The new versions of *Windows* feature faster execution, better use of available RAM memory and easier installation. Using a little-known feature of the 80286 CPU, Microsoft was able to redesign *Windows/286* to eke out an additional 50K of RAM if the computer has extended memory in it. With the additional memory, programs running under *Windows/286* run about 40% faster.

Windows/386 was improved to support the Hercules high-resolution monochrome adapters. Both programs are significantly easier to install now that they detect the type of hardware you are using as you run the installation program. Both programs also directly support many more printers and plotters, and have a better implementation of the LIM standard for extended memory.

COBOL version 3 now supports many dialects of COBOL and is certified by the National Bureau of Standards for compliance with ANSI 85 standard. Microsoft stressed that this version of COBOL is compatible with both mainframe COBOL languages from IBM as well as competing mini- and microcomputer implementations of COBOL. Version 3 runs under both MS-DOS and OS/2; the OS/2 version can handle programs that use up to 16 megabytes of memory. The programs produced by version 3 run up to ten times faster than those produced by version 2.

Microsoft also announced that its database of technical questions and answers on its products will be available on the GEnie electronic network. Microsoft customer support staff will also answer questions posed in the discussions in the Microsoft

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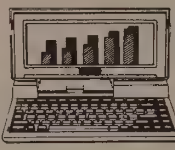

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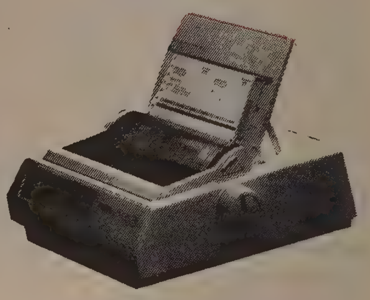

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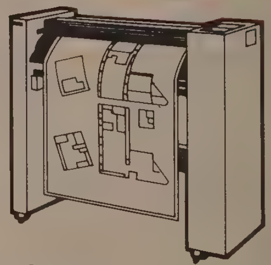

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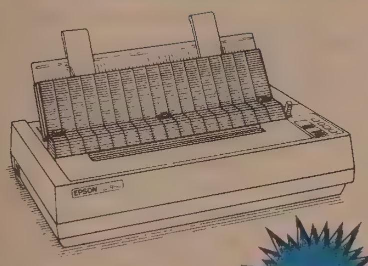
EPSON
LQ-950 24-PIN PRINTER

New

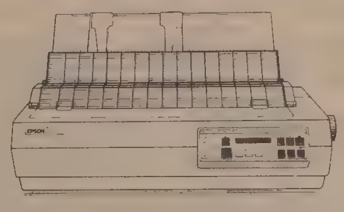


The mid-size LQ-950 is a 24-pin, Letter Quality printer with outstanding performance features.

- Mid-size carriage allows horizontal printing of text and graphics on 11″ wide paper, without the use of additional software.
- Occupies only slightly more desk space than narrow-carriage printers.
- SmartPark™ features let you switch from fanfold paper to single sheets or envelopes without removing hardware or paper; eliminate paper waste and accurately adjust top-of-form position.
- Prints 264 characters per second (CPS) in draft mode; 88 CPS in Letter Quality.
- Prints Letter Quality text and high-resolution graphics up to 360x360 dpi.
- Enhance correspondence with built-in "double underline," "strike through" and "overscore" print modes in standard Roman and Sans Serif fonts. Optional font modules are also available.
- SelectType front control panel for push-button ease of operation.
- Epson's one year limited warranty.

New

EPSON
LQ-2550 24-PIN PRINTER



Epson's advanced LQ-2550 is a powerful and versatile printer delivering superior print quality and paper-handling performance over a full range of business printing needs.

- 24-Pin technology creates superior Letter Quality characters and high-resolution graphics up to 360 dsi.
- 7-Color printing capability is standard.
- Epson's exclusive SmartPark™ lets you change from fanfold to cut sheet paper or envelopes without removing hardware or paper. Features top-of-form micro-adjustment and short form tear-off.
- Exclusive LCD SelecType front control panel for eash selection of pre-sets, fonts and printer functions.
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- Backed by Epson's one year limited warranty.

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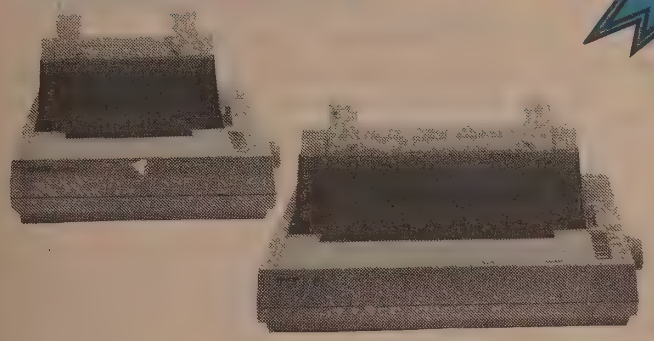

Epson's remarkably quiet LQ-850 and LQ-1050 are fast, 24-pin dot-matrix, letter quality printers ideal for small business and corporate environments. Both print at 264 characters per second (CPS) in the high-speed draft mode and 88 CPS in letter quality mode, at a quiet 55 dB or less noise level. The narrow carriage, 80-column LQ-850 and wide carriage, 136-column LQ-1050 bidirectionally print high-resolution quality in both text and graphics. For versatility and ease of operation, the LQ-850 and LQ-1050 are built with SmartPark™, the paper handling feature which allows changing paper without changing hardware; and SelectType, an illuminated LED, front control panel for selection of resident and optional fonts, pitches and print modes at the touch of a button. There's also a standard 6K internal buffer. And both come with Epson's one year limited warranty.

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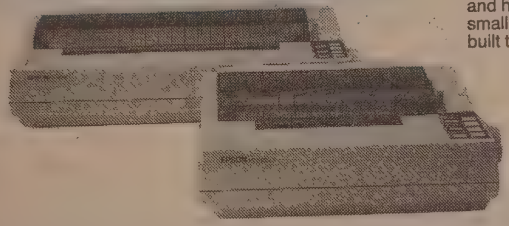
FX-850 & FX-1050 DOT MATRIX PRINTERS



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area of GEnie, as they do now on CompuServe. The database covers all of Microsoft's retail products, but not the operating systems or computer languages. Using the database will cost twice as much per hour as asking questions in the discussion, however. Microsoft stressed that this service is in addition to its standard telephone support. Since using GEnie at night is significantly less expensive than long-distance calls to Microsoft headquarters in Redmond, WA, they hope that many non-urgent problems can be solved by users on GEnie.

Intel Announces 386SX To Push 80836 Software Development

Hoping that more companies develop software specifically for the 80386, Intel released a new, low-cost version of its 80386 processor. The 386SX runs all the same software as the high-end 80386, but more slowly due to its 16-bit external bus. Intel estimates that computers using the 386SX will run about half as fast as the 80386, but will cost much less due to the lower cost of the CPU as well as the lower cost of the supporting chips needed to make a computer. The chip will be shipping in large quantities by the end of this year, according to Intel.

Operating system manufacturers have not spent much time developing operating systems and environments for the 80386 because it has been perceived as the very top of the microcomputer spectrum, and therefore not part of the mainstream. The existence of the 386SX will help move the chip more towards the center of the market, according to manufacturers who have already started developing computers based around the 386SX. The 80386 has the great advantage that it can emulate many 8086 computers running at the same time. A few operating environments such as *Windows/386* from Microsoft have taken advantage of that fact and allow users to independently run many programs without any special precautions.

Pyramid Announces New Mainframe UNIX Computer

Keeping the UNIX flame alive on the low end of the mainframe market, Pyramid recently announced its Series 9000-TA, a much faster version of its present line of high-end UNIX computers. The 9000-TA is aimed at the corporate UNIX market, which is dominated by database management system users. At the announcement of the computer, executives of the leading database management system companies debated which of their software package had the best performance. Although the ensuing argument turned the discussion away from Pyramid's powerful new RISC-based system, it showed that the DBMS market is still hotly contested in the UNIX world. The system sports a greatly improved I/O system and better data handling by the operating system.

IBM Announces Major New Mid-Range Computer Line

The long-rumored "Silverlake" system, a merging of IBM's popular System/36 and System/38 minicomputer lines, has been formally released as the AS/400 series. IBM intends this series, which initially has six models, to be its primary mid-range offering for at least the next ten years. The AS/400's operating system, called OS/400, is fully compatible with IBM's Systems Application Architecture (SAA), and can thus be integrated easily in networks with mainframes and PCs that run OS/2. The new computers will run almost all of the software that currently runs on the System/36 and System/38 lines.

The low end of the series, the B10 and B20 models, are about twice the size of the PS/2 and do not require any special air conditioning. They come with at least four megabytes of RAM and 630 megabytes of disk, are powerful enough to handle at least four users. They also come with built-in token-ring adapters so that they can be easily integrated into IBM networks. The B10 is small and inexpensive enough for IBM to push it as its smallest multi-user system, and it is unlikely that IBM will try to turn the high end of the PS/2 series into a multi-user system. This leaves a large gap that UNIX vendors with 80386- or 68020-based systems can fill in the small office market.

IBM's emphasis on SAA for the new OS/400 operating system shows that it is taking SAA seriously as its integrator over the next decade. The higher-end models in the AS/400 line will handle 50 to 100 users, making them an easy transition into the low end of IBM's mainframe series, the 9370 family, which already is compatible with SAA. IBM also stressed that the AS/400 models can be integrated as a file and disk server for PC-DOS based computers and will probably follow up with new PC-DOS programs that help integrate the two computers in offices.

In a move unique for IBM, over 1000 packages from other vendors were announced with the AS/

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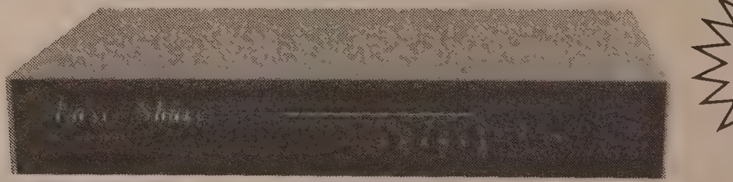

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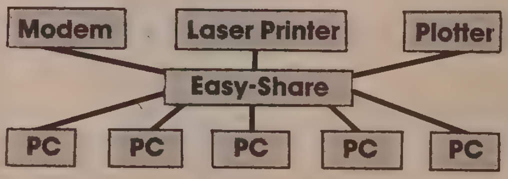

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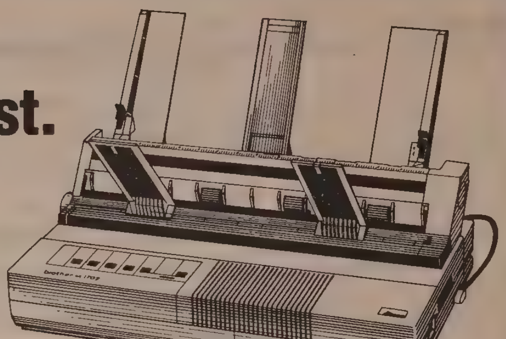

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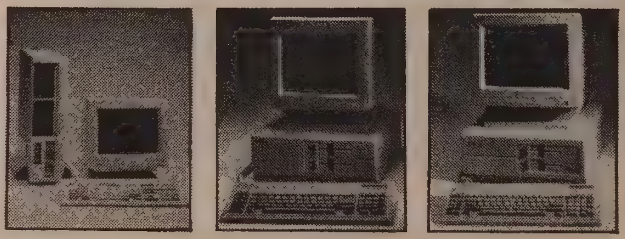

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NEWS AND ANALYSIS

400; traditionally, IBM only mentions their own software. Many of these packages were communications packages for linking the AS/400 to microcomputers and computers of other manufacturers. Like IBM's OS/2 Advanced edition, the OS/400 operating system will come integrated with an SQL database management system and communications software. It will also come with an extensive online documentation and question-and-answer system, as well as a menu-driven user interface.

Motorola, Intel Announce Faster Math Coprocessors

Both of the major manufacturers of CPUs announced faster versions of their math coprocessors. Math coprocessors allow software that uses them to run at much higher speeds. Motorola announced that its 68882, which works in conjunction with Motorola's 68000 family of CPUs, is now available in a 33 MHz version. It is plug-compatible with Motorola's 68881, so users can simply unplug the old version and insert the new one. The 33 MHz 68882 costs $708. Intel announced that it is now selling its 25 MHz 80387 coprocessor, which works with the Intel 80386, in the retail market; until now, it had only been available to hardware manufacturers. The 25 MHz 80387 costs $1395. Intel also announced approximately 10% reductions in the retail price of the rest of its line of math coprocessors.

Migent Announces 1-2-3 Database Add-In

Migent's latest addition to its line of database management system products, *Summit*, allows *1-2-3* users to access data from any *Emerald Bay* database on a network, according to the company. The *Emerald Bay* line gives multiuser access over a network to various data applications. *Summit* lets *1-2-3* users retrieve and update data without leaving their spreadsheet. In addition, it lets users import data from databases as cells in a spreadsheet. The program adds commands similar to Lotus' internal commands and is thus easier to learn than many other 1-*2-3* add-ins. Migent, 702/832-3700.

Commodore To Bundle GEOS with C64 and C128 Disk Drive

Starting immediately, Commodore will give away a copy of the *GEOS Desktop* program from Berkeley Softworks with every Model 1541 drive they sell. GEOS (Graphical Environment Operation System) has become one of the most popular pieces of software for the Commodore system, and its inclusion with every disk drive signals that it has become the standard for user environments.

Berkeley Softworks will continue to sell applications that run under GEOS, such as *geoWrite* and *geoPaint*. The agreement allows Commodore to bundle an operating system with the majority of its systems, much as business computer manufacturers do. Although Commodore has invested more heavily in its Amiga product line in recent years, the C64 and C128 continue to bring in significant revenue for the company. ☐

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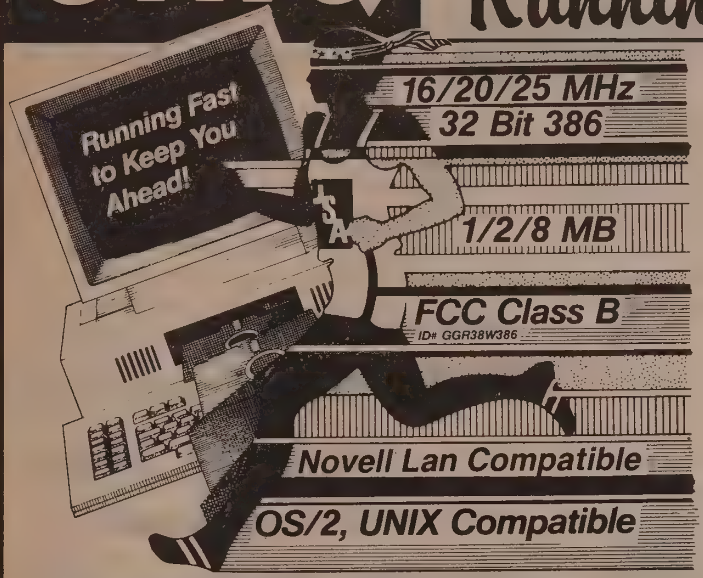
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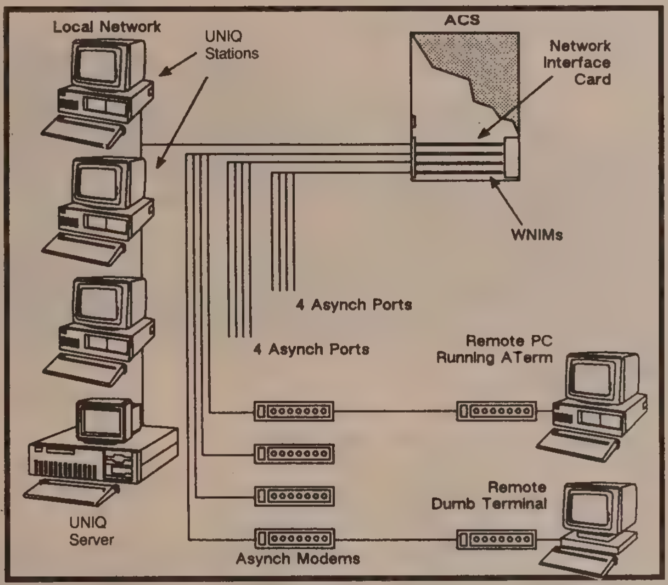
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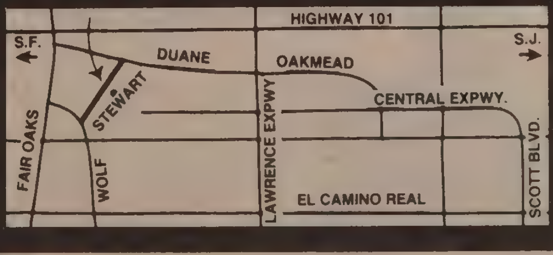
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Painless Literacy, Self-Setting Clocks And Other Timely Inspirations

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Learning Reading Painlessly

Anne Herbert of Mill Valley has observed that if most folks learned to speak only in school, we might have numerous non-speakers. Instead, speech is learned in the context of seeing and hearing. Reading is best learned in the same context.

Therefore, Anne suggests: Subcaptioning selected television shows could provide valuable instruction in reading and written language. Word-for-word subcaptioning of properly-paced children's shows might allow painless, subliminal association of written words with their spoken form and their action contexts.

She adds that similar captioning could be equally valuable for adults learning a written language—including their native language. This might address this nation's appalling and dangerous level of illiteracy, and cost much less than, say, the Army's malfunctioning battle tank.

And, of course, such captioning would be useful for hearing-impaired television viewers who don't own a closed-caption decoder.

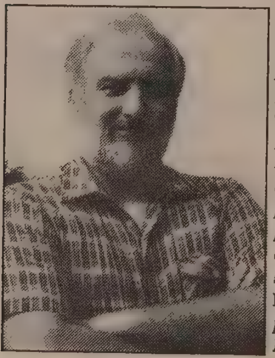
But, one request: Have subcaptioning as black text on solid-white background, or vice-versa—not simply characters overwriting whatever the video image is, which often merges text and background into illegible mush.

Self-Setting Clocks

It's time for electronic timers to set themselves and remain accurate—digital clocks, clock-radios, oven timers, etc.—and especially VCR timers. It's not really that hard and shouldn't be that expensive if mass-produced.

For years, Heathkit has offered a clock-in-a-kit that synchronizes itself using the National Bureau of Standards broadcast time signals. It retains accuracy to within 10 milliseconds of the Bureau's atomic clock (Heath kit GC-1000-H, but not cheap). For decades, radio and TV stations have kept their local and national programming in sync using such NBS ticks.

We no longer hand-crank our cars; we should no longer have to hand-set our clocks—particularly those that need accurate setting for tight synchronization with external events, such as television recorders.



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Jim Warren founded the West Coast Computer Faire, the Silicon Gulch Gazette *and* Infoworld *newspapers, Video Initiative, and the DataCast proposal for broadcast-based paperless electronic newspapers utilizing personal computers. He was the founding host of the PBS* Computer Chronicles *series, founding editor of* Dr. Dobb's Journal, *and founding president of the Microcomputer Industry Trade Association.*

Old War Story: Woz's CORE

Steve Wozniak's idea that became the CORE controller has a similar genealogy to the self-setting clock proposal. The CORE is a programmable wireless remote controller—with robust and obtuse programming that quickens the heart of any hardcore computer junkie. Its generality makes other programmable controllers look like brain-damaged toys.

If I correctly remember a Berkeley pizza conversation almost a decade ago: Woz was fed up with having to run around his student apartment resetting his dozen-plus digital clocks and appliances—particularly the programming of his VCRs—every time PG&E sneezed. He was also fed up with having numerous incompatible controllers, one for each wireless widgit.

Thus, he envisioned a single controller of generic format and robust power that could be taught the signals of many product-specific controllers. Now, self-resetting timers would complete Woz's desire for hands-off reprogramming. Let's do it!—for the Woz.

Economical H-P Softfonts

Though this column is primarily about projects not yet done, here is a fantasy finally realized: Someone is economically offering a massive collection of softfonts for downloadable Hewlett-Packard LaserJets. Digi-Fonts, Inc. now delivers eight typefaces for about $70; another 264 typefaces for about $350. Most importantly, the user can size every face from 3/72-inch to 10 inches (3 to 720 points), slant 'em, rotate 'em, flip 'em, reverse 'em and store 'em or download 'em, using a *FontMaker* program included with the basic eight! (3000 Youngfield #285, Lakewood, CO 80215; 800/242-5665).

Digi-Fonts is a family product—produced by Larry and Lisa McClure with oversight (insight?) provided by Bob McClure. Pappa Bob is one of the most competent and experienced computer pros and international consultants I know, with well over a decade's detailed experience in digital typography. Even more valuable—the whole family practices a level of reputability too rarely seen amongst microcomputing's clouds of vaporware.

Why, they even began delivering their product as soon as they announced it!

Digi-Fonts Prompts More Fantasies

Having a huge range of LaserJet fonts economically available incites additional product ideas. New and existing text editors, word processors and desktop publishers need the ability to use this massive font collection.

Also, thousands of antique, hardfont-only LaserJets need plug-in hardware to field-upgrade them to accept softfonts—Digi-Fonts and the previous high-priced spreads. Their Canon print engines work just fine, but the softfont support hardware is needed to allow these good ol' machines—arbitrarily obsoleted by H-P—to use downloadable fonts. (If I remember correctly, Tall Tree's J-Laser interface offers one excellent solution to this problem.)

We no longer hand-crank our cars; we should no longer have to hand-set our clocks—particularly those that need accurate setting for tight synchronization with external events, such as television recorders.

Utopia For Academics And Researchers

A. L. McClellan, a chemist from El Cerrito, poses a problem: Researchers and academicians must often deal with massive bibliographies that must be cross-referenced by title and by author. In some disciplines, there are often ten or twelve authors listed for each paper (an affliction of the publish-or-perish dictum). This is particularly true in the physical and life sciences.

McClellan illustrates the magnitude of the problem with a typical example of one of his current books. In it, he cited over 2,700 articles, having a total of more than 8,000 authors.

To create the dual indices with most word processors, the authors' numerous names must be typed twice—once with the title citation, and a second time for the author index. Of course, a separate database program can be used—if the author

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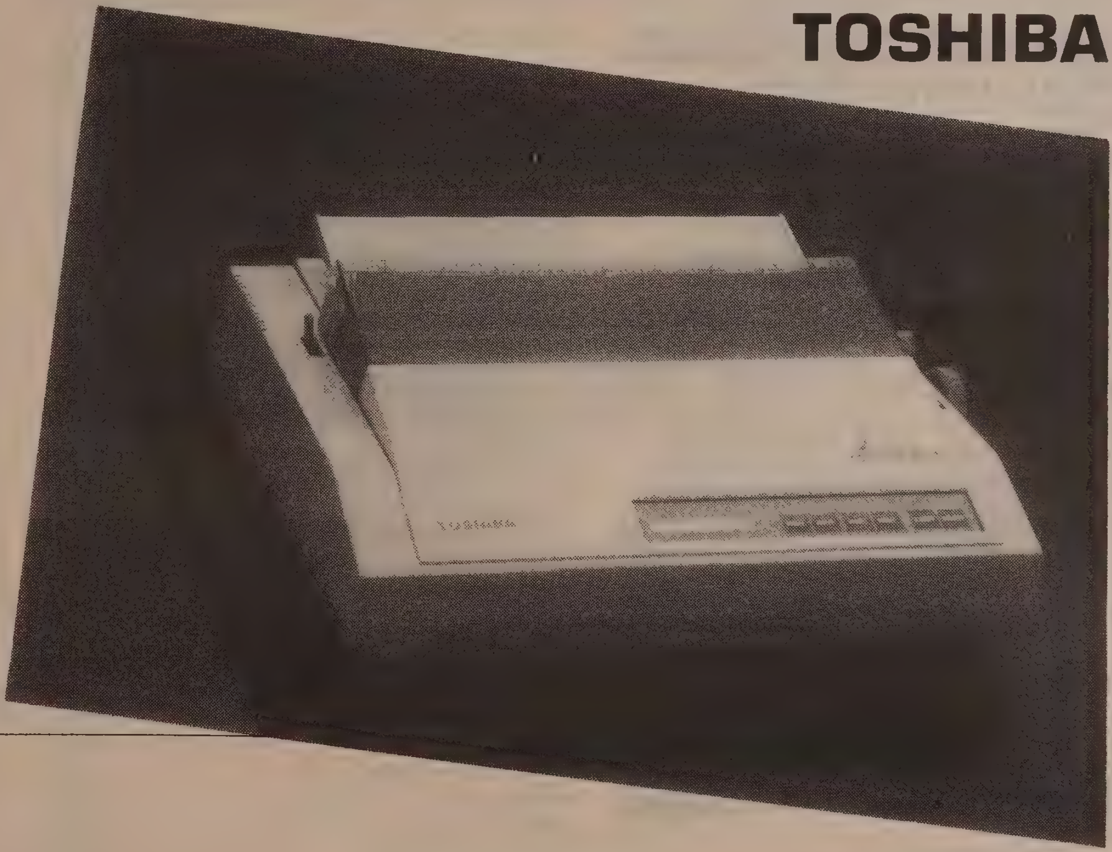

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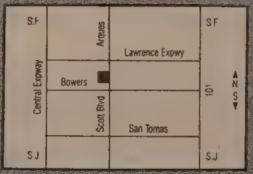

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. . . Long ago I dreamed of having the time and resources to produce the definitive source of no-hype microcomputing technical information. Well, to a large extent, it's finally here . . .

chooses to become a computer programmer as well as a scientific researcher and writer.

Seems like a word processor that could comfortably handle thousands of cross-indexed title and author references would be very well received, indeed.

Definitive Micro Info Achieved

Another fantasy achieved: Long ago, while editing *Dr. Dobb's Journal*, I dreamed of having the time and resources to produce the definitive source of no-hype microcomputing technical information. Well, to a large extent, it's finally here—an information source with technical accuracy and judgment that can be trusted.

Much less well known than it should be, it's a newsletter called the *Microprocessor Report*, edited by Michael Slater (550 California #320, Palo Alto, CA 94306; 415-494-2677). It ain't cheap, but it's worth much more than its subscription to microcomputing designers needing accurate information on which to base big-bucks design decisions.

Auto Motive Addendum

The last column outlined a possible standard for cruise controllers for cars. An additional note:

Dimmer switches should be on both the steering column and the floor. Hand dimming's nice for driving in a straight line, but foot dimming's safer and more convenient on twisting mountain roads when hands are constantly busy.

No Scuba Divers' BBS?

Is it really true that the million-plus scuba divers floating around the U.S. have no computer bulletin board system? With dive buddies always needed, dive site conditions changing daily, new dive trips always being scheduled, dive resort rates and options changing daily and endless used gear to be traded, the apparent lack of a Scuba BBS is really surprising—but I've found none listed in the several BBS directories I've checked. I'd be delighted to report the details that prove I'm wrong.

And while we're wondering: Is there a BBS that makes a serious effort to maintain a list of all the other ever-changing BBS's?

Sharewhere? Share Here!

To share tantalizing techno-thoughts, send them to Jim Warren, Realizable Fantasies, 345 Swett Road, Woodside, CA 94062. Attribution for published proposals is given their authors, unless anonymity is requested. ☐

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BUSINESS COMPUTING • BY SUZANNA MUSICK

Does Your Office Need OS/2?

OS/2 is the Operating System of the future. The two giants of the microcomputer industry, Microsoft and IBM, say so. But for most business users the future is not yet here.

OS/2 offers significant improvements over MS/PC-DOS (DOS). These include the ability to operate multiple application programs at the same time (hence, multitasking), and to use large amounts of memory. Unfortunately, these gains come at a significant cost.

Perhaps the best way to determine whether or not you are ready to convert is to ask yourself, "Is there something I need to do with OS/2 that I can't already do with DOS?" Let's examine OS/2 more closely.

Running Programs

OS/2 functions under two operating modes: Real and Protected. Real mode emulates XT-type machines so you can keep using the programs you have now. Protected mode manages OS/2's multitasking capability.

Real Mode: OS/2 is designed to let users operate all DOS programs. However, no one should buy OS/2 just for this purpose. In fact, DOS applications generally run slower under OS/2.

While it is possible to run DOS applications under OS/2, the reverse is not true. Nor will OS/2 function on the XT-compatible machines using the 8088 chip. OS/2 requires the power and advanced instruction set of AT-compatible machines using the 80286 (286) or 80386 (386) chip.

Protected Mode: In protected mode, OS/2 can manage more than one program at a time. For example, while you are waiting for your spreadsheet to recalculate, you could be dashing off a cover letter to go with it.

Although Protected Mode gives you the multitasking option, you won't be working with familiar programs like *Lotus* and *WordPerfect*. At least not today. Multitasking is only available for programs written specifically for OS/2. Once the software is available, multitasking could be a strong motivator for considering its purchase.

Today simulated multitasking (actually task-switching) is available under DOS through such programs as *Windows* and *DESQview*, but we have seen few converts. This is partially due to the fact that when running on the 8088 chip, these programs are altogether too slow. While OS/2 uses the faster speed of the 286 chip, I am not convinced many users need multitasking. Most people I know are thrilled to do one thing at a time well.

Memory

As software grows more complex, larger amounts of memory are required to operate and store program files. Because OS/2 transcends the 640K memory limitation of DOS, more complex programs can be written for the microcomputer. In OS/2, up to 16 Megabytes (MB) of memory can be addressed, allowing programs to use as much as they need. Currently, though, few programs are written to take advantage of this expanded capacity. One exception is OS/2 itself, which requires 1.5 MB to boot up. A sophisticated multitasking environment may require four or more megabytes of memory just to function. (It has been rumored that one reason Lotus is slow in releasing the new version of *1-2-3* is that they are having trouble "squeezing" the program's code into DOS's 640K.)

Presentation Manager

OS/2's graphics interface — called the Presentation Manager — is said to be quite nice: it provides a consistent link between the user and the programs. In fact, it bears a startling resemblance to the Macintosh screen (hence, the current lawsuit between Apple and Microsoft). With the Presentation Manager, each program you use resides in a separate "window" on your screen. Using a mouse, you can move quickly from one application to another. This is a definite improvement over the standard DOS environment, where changing programs often means typing and retyping paths to applications, and data from the infamous "C:/>" prompt.

The down side of the Presentation Manager is that it is not yet available in an OS/2 version, though a preview version is available with *Windows 2.03* and *386*, both of which run under DOS.

Other Factors

When evaluatinng whether or not to use OS/2 there are a few other factors to consider. First: OS/2 is not complete. With software development of any kind, that translates into bugs. If the Operating System has bugs, how can you expect your application programs to run smoothly?

Second, DOS is neither obsolete nor dead. There are more than ten million DOS users operating thousands of DOS applications. Software developers are not going to abandon such a huge user base. They will continue to develop and support DOS applications for a long time to come. Most industry leaders say it will be three to five years before we see a proliferation of OS/2 applications. There were reportedly less than 500,000 IBM PS/2 units (which support OS/2) sold in 1987. And, as with *VisiCalc* on the CP/M operating system, and Lotus *1-2-3* on DOS, it will probably take a blockbuster program to convince significant numbers of DOS users to switch anytime soon.

Costs

While microcomputer users have always been drawn by such product features as "more" and "faster," OS/2's "more and faster" costs considerably more.

Today OS/2 is a tool for software programmers and power users using power applications on powerful microcomputers. If you doubt you need it, you probably don't.

Software Costs: Many updates of the Operating System will be forthcoming before it is complete. This adds to the complexity of developing software under OS/2 and indicates that the developer will incur greater expenses in programming and testing new products. Additional costs will naturally be passed on to us — the users. It also means that some small software developers may not be able to afford to write programs for OS/2 — hence less software available to choose from.

Hardware Costs: More hardware is needed to effectively run OS/2: faster chips, more memory, a mouse, etc.

The hardware side of this industry has shown again and again that as new technology matures, and competition increases, prices decline. What costs thousands today typically costs hundreds tomorrow. While I never recommend delaying the purchase of hardware or software because it may be cheaper tomorrow, I can't see purchasing something at a premium when you are not even sure you need it. The competition has proven its ability to make the same functional hardware for substantially less than the going IBM price. Figure on spending a minimum of $1,500 to $2,000 to upgrade from a 286-based machine to an OS/2 compatible environment.

Conclusion

Today OS/2 is a tool for software programmers and power users using power applications on powerful microcomputers. If you doubt you need it, you probably don't. Leslie Fiering, Manager of Advanced Technology for Banker's Trust put it best: "Technology without an application is meaningless."

That sums up the status of OS/2 today. Until the software is available, why incur the considerable expense of hardware, software, learning time and frustrations? We have a saying in the microcomputer profession: "You can always tell the pioneers by the arrows in their backs." Don't be a pioneer. Wait for the future to arrive, then decide. □

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Suzanna Musick is a Manager in the Computer Consulting Department of Hemming Morse Inc., CPAs. Her experience encompasses a wide range of industries such as distribution, retail, construction, real estate, financial and professional services.

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Compaq Deskpro 386/20	4.59	34.5	24.2
Everex Step 386/16	**3.93**	**27.3**	**19.5**
Everex Step 286/16	**3.27**	**21.4**	**18.4**
AST Premium 386/20	3.04	20.0	21.0
Wyse 386/16	2.98	20.6	17.6
Acer 386/16	2.99	20.6	16.2
Compaq Deskpro 386/16	2.90	20.0	17.6
IBM PS/2 Model 80, 16MHz	2.87	20.0	17.6
Everex Step 286/12	**2.45**	**15.9**	**13.7**
AST Premium 286/10	2.02	13.0	11.1
Compaq Deskpro 286/12	1.89	11.7	11.5
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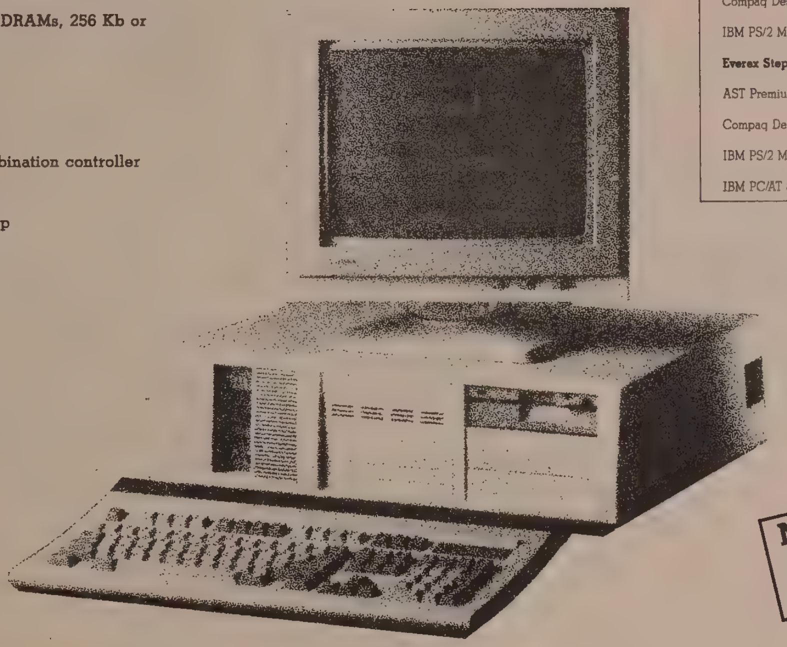

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COMPATIBILITY TESTING RESULTS

The Everex System 386 has been evaluated by XXCAL, an independent third-party testing house. The test objective, as stated in XXCAL's report of February 16, 1988, was "to reveal any problems or inconsistencies relative to a selected group of off-the-shelf commercial software, networks, and peripheral products" on the Everex System 386. XXCAL's technicians "installed each application per documentation...[then] tested all functions, commands, and options directly related to a successful and thorough test of the product."

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Programming Roads Less Traveled

Powerful And Unusual Languages For The DOS World

By Birrell Walsh

A previous article (*MicroTimes*, July 1988) examined the mainstay languages of the DOS world. They are C, Turbo Pascal and BASIC. They have been borrowing each other's features so long that they have become similar, by a kind of convergent evolution. This month's languages are Forth, Scheme, Smalltalk and APL. Each of them is very distinct from the Big Three. Each is used for special purposes by a particular community. This article looks at the purposes and the communities.

The four languages are used by some of the most interesting people in the computing world. Forth attracts mavericks; people who think they can do a job better, faster and with more originality like the speed, power and extendability of Forth. Scheme is MIT's favorite dialect of LISP. If you want to join the world of artificial intelligence, Scheme is your passport. Smalltalk is also used in artificial intelligence work, but it is the darling of people who build graphic simulations of all kinds. APL is used to handle a lot of numbers with grace and pleasure. Financial planners and actuaries rub shoulders with mathematical visionaries in the APL world.

I began with these languages for a reason other than their practical benefit. I wanted to see if they could confirm a 60-year-old hypothesis in linguistics. The theory suggests that languages shape the way their speakers think. The Sapir-Whorf Hypothesis, for so it is called, suggests that languages provide channels for people's thoughts to run through. Different channels will shape different thoughts. If true, the hypothesis means that we can design languages to facilitate certain kinds of thought. It's hard to prove or disprove the theory in the natural world, because it is difficult to separate the effects of a language from other cultural influences. There is one perfect test, though: people who share a single culture can "speak" different computer languages.

There are three ways a language shapes thought, and each shows up in the four computer languages we are surveying here. The first way is to require that certain kinds of information be included in most utterances. In Western Indo-European languages, you must say *when* something happened, because all verbs must have tense. We pay attention to time. The Japanese language requires you to state the relative status of the person to whom you are speaking (higher, lower, or equal) in every sentence. You can bet the Japanese pay attention to status.

The second way a language encourages certain ways of thought is to make it easy to think in those patterns. As the proverb says, "If you have a hammer, everything looks like a nail." English's "subject-verb-object" sentence pattern encourages "actor-action-receiver" thought patterns, or thoughts about "cause and effect." In Navajo, it is easiest to name something by describing its characteristic behavior: a duck is "Naal'eethli"—"That which floats all around." The majority of Navajo nouns are made from verbs in this pattern, and so Navajo tends to be much more descriptive than our language.

A third way languages shape thought is to make it difficult to say certain things. Not impossible, mind you—just awkward. Laziness makes the difficult behavior rare. In Japanese and Navajo, it is difficult (though possible) to specify whether a thing is singular or plural. The speakers of those languages only specify number when it is particularly important to do so. In English, we have difficulty specifying "reportorial status." It takes effort to say whether information is something we have gotten by observation, second-hand by someone's report, or a priori (by recognizing a universal truth). We only make this distinction when necessity requires—say, the threat of a lawsuit for libel. In the Hopi language, every sentence must make this distinction, and Hopis do it with the same skill that we have in handling time.

Because C, Pascal and BASIC have converged, using one of that trio will rarely reveal an angle on a problem that cannot be found by using another of the three. The four computer languages reviewed here each direct your attention in a unique way. When you use one of them, you will rethink your problem from that characteristic point of view.

To test the hypothesis, I solved the same problem in each of the four languages. The sample program in each takes an input sentence and tells where in it there are vowels and consonants. "Hello!" becomes "CVCCV!" It also reports the number and percentage count of vowels and consonants. Each sample program hopes to point out what I think are the characteristic usages of the language. It is only fair to say that I may not have shown the languages at their best, nor used them with their full power.

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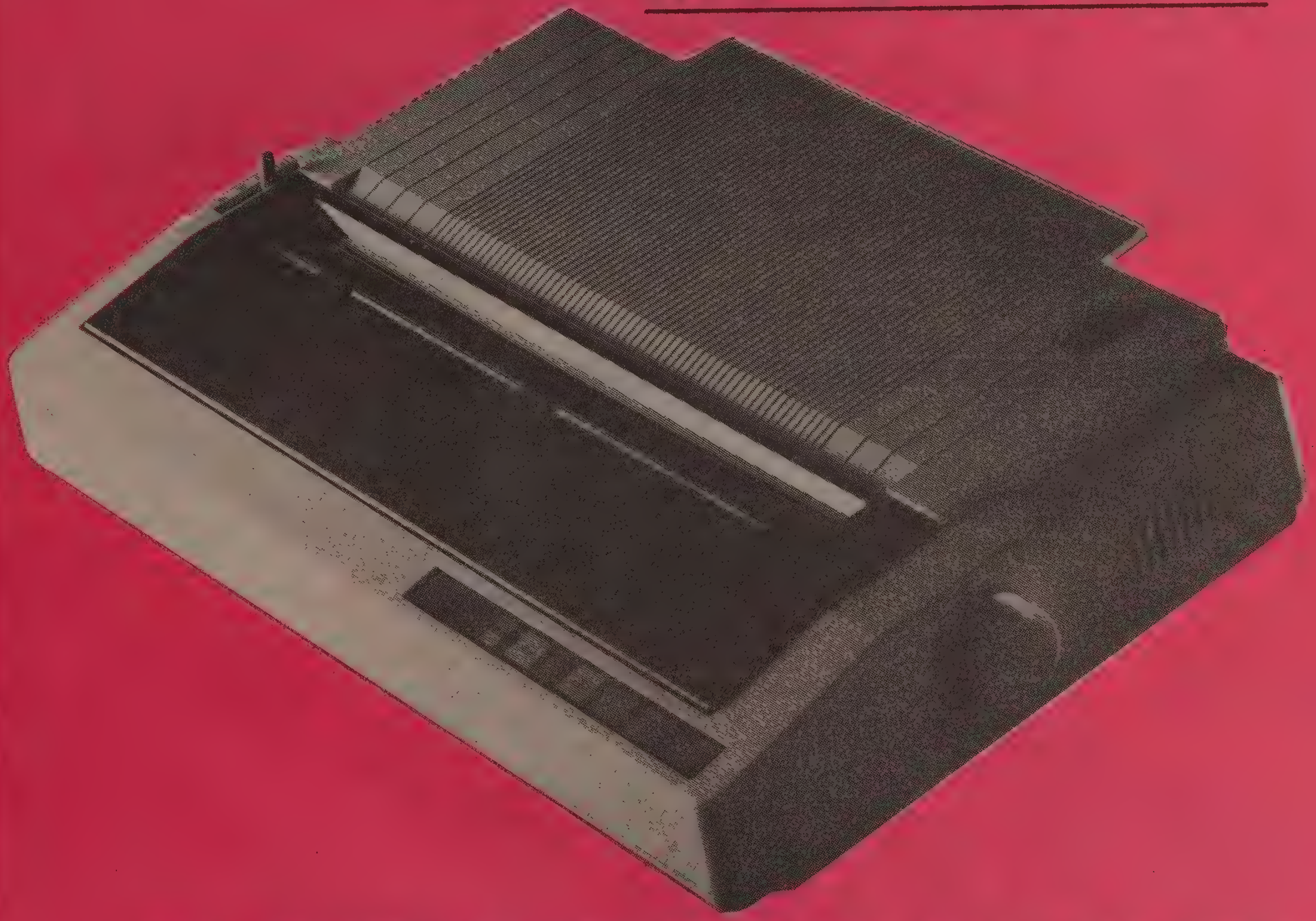

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Programming Roads Less Traveled

Forth

Reviewing: Micromotion's MasterForth v. 1.2

Forth began as a language for controlling large machines—radio telescopes, in fact. Its heritage of moving things shows in its design. Using Forth is like running a factory and its warehouse. The good news is that you can design each process to the last detail. The bad news is that you *must* design each process to the last detail.

Forth's notation is very different from Pascal, C and BASIC. Each "word"—the Forth name for its operators—can be pronounced, although some of them are a single symbol. "!" is pronounced "store." It is used to put something into memory. "@" is "fetch." It brings things from the memory warehouse to the "stack," which is Forth's workshop.

Forth requires that you pay attention to what's going on upon the stack. The stack is a pile of data; the last item you put on it is the first one to come off. You use the stack for temporary storage in the same way that other languages use temporary ("local") variables.

Items placed on the stack can be piled on top of each other. Typing "3"<return> then "4" <return> puts a 3 on the stack, and then a 4 on top of it. Because items must be put on the stack before they can be worked on, operations are entered after things are brought to the stack from the keyboard or from memory. Typing "3 4 +" puts a 3 on the stack, then puts a 4 on the stack, then adds them and leaves 7 on the stack. The post-fix ("attached after") notation for operations seems odd when you think of it as a formula, but it makes sense when you think of Forth as a workshop where you must get your supplies before you can use them.

The language allows you to combine its "words" to make new words or procedures. It is a custom to build up a Forth program in small steps, defining many more sub-procedures than you would in most languages. We defined eleven new words in our sample program. Yet Forth programs are typically smaller than other high-level languages' programs, because those steps are so efficient. Usually the first few words defined in a program are difficult to understand because they are almost machine code. As the words are combined to make more complex processes, a well-written Forth program becomes easier for the uninitiated to understand.

The sample-program listing begins with a byte-by-byte allocation of memory for our program's use. We need a variable named "inputline" with 255 bytes allotted, so we create one. Unlike other languages where we would need to declare a type of data for this space, Forth lets us use it as we will. We quickly create three variables for the counts of vowels, consonants and total letters, then we do another Forth trick. We create a space named vowels and compile in the ASCII values for A, E, I, O, U and Y (65 69 73 79 85 89). "c" is Forth jargon for one—byte operations, and "," means compile the preceding into the ongoing compilation. So "65 c," means "Compile in the ASCII code for capital "A" at this point." As you can see, Forth works right down at the byte—by—byte level. None of our other languages work with this gritty detail.

Forth encourages you to know actual memory locations for important functions and the actual values of codes like the ASCII character-set. This detail requires specific knowledge; in exchange, you get efficiency. The following definition from the sample program shows Forth using the fact that lowercase letters have ASCII codes which are 32 higher than the corresponding capital letter. The ASCII code for small "a" is 97, while the code for capital "A" is 65. If you plow through the definition, you will see Forth's brevity and grittiness working together.

```
: lowcase? dup 96 > swap 123 < and ;
```

Forth starts the definition of a procedure with ":." The next word is the name the new procedure (or "word" in Forth) will have. This word is intended to find if a character is lowercase, so we call it "lowcase?" It will take a value from the stack, and leave a -1 if the number is within those which are ASCII lower-case letters. How it does this is odd if you think of it as a computation, and quite sensible as a manufacturing process. The program will be moving pieces of data to the top of the stack, performing operations on them and then moving them out of the way to do another piece of work.

Like many Forth words, "lowcase?" assumes it will find a value on the stack to work on. First it makes a copy of the value with "dup" so there are two copies of the value on top of each other on the stack. It takes the first one and asks if it is greater than 96. 97 is the number of small "a," the least of the ASCII lower-case letters. Now there is a "yes" (-1) or a "no" (0) sitting on the top of the stack. If the value on the stack was greater than 96, the value is -1. Next, we must bring up the copy of the original value from the second position on the stack. "Swap" does that. Another test is done: is the value less than 122? 121 is the ASCII value of "z," the highest-numbered of the lower-case letters. If the answer is yes, the stack gets a -1; otherwise, a 0.

If you are new to Forth, you may be saying "Whew! For all that I could be doing assembly language." But Forth has some advantages that assembly language does not.

Both copies of the original value were used up in the testing. At this point the stack has the results of both tests on it. Now the program wants to know if the answer to both tests was "yes." The last word, "and," makes that test. If and only if both the other tests gave a "yes," the "and" will also give a "yes." If either or both of them gave a "no," the "and" will give a no. What will remain on the stack is a "Yes" (-1) if the original value on the stack at the beginning was both greater than 96 and less than 122. Otherwise, the top of the stack will have a "No" (0). All of this activity follows from the definition

```
: lowcase? dup 96 > swap 123 < and ;
```

If you are new to Forth, you may be saying "Whew! For all that I could be doing assembly language." But Forth has some advantages that assembly language does not.

Initial Forth definitions are full of low-level detail. Later definitions may be quite abstract. This full range from low-level to high-level is typical of Forth, and as a Forth programmer you will come to think with equal comfort in very abstract *and* very concrete terms.

Forth programs can be portable from machine to machine. Micromotion offers Forth implementations for DOS, the Mac, the Apple II series and the Commodore 64. To a very large degree, programs written for any can be used on the other machines, even though you have different chips in each. Also, Forth is extensible. The new procedures you write can be used just as if they were part of the original language. You can therefore design systems that are almost as fast as assembly language, but which do exactly what you want.

The bad news with Forth is that you must write most input-output yourself. Forth does not have the extensive third-party libraries that are available for its great rival, the C language.

A Forth program, like a well-run factory and workshop, is a choreography. If you keep track of where your data is and what's happening on the stack, the elements dance. You can achieve stunning efficiency because you are working very near the hardware level. You can also achieve stunning crashes. If you like a direct, kinesthetic sense of manipulating data, Forth is for you.

MasterForth Version 1.2
(includes a copy of *Mastering Forth*, a 200—page tutorial and reference)
$125
from :
Micromotion
8726 S. Sepulveda Blvd. #A171
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Scheme

Reviewing: Texas Instruments' Scheme

Lisp is the language of choice in the artificial intelligence community. Texas Instruments has made Lisp available to us for $95. Not only have they given us Lisp, they have provided the powerful and innovative Scheme dialect. Scheme has a rela-

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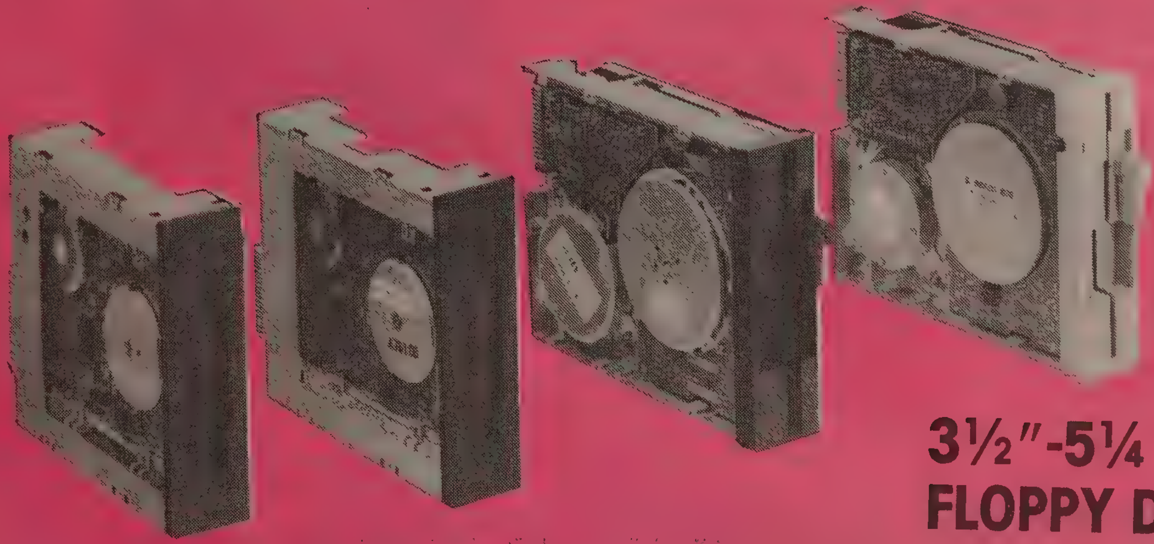

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Programming Roads Less Traveled

[redacted]

tively small number of commands and a simple, powerful syntax.

Scheme, like all Lisp dialects, is full of parentheses. The parentheses in Scheme mean "evaluate what's inside these parentheses." The result is a nest of parentheses and in Scheme one of the most trying tasks is keeping track of how many parentheses you must put on the right side to close off all the expressions.

These parentheses connect things together with a flexibilitiy unmatched in other languages. Each pair of parentheses is the mouth of a tunnel. Evaluating what is inside the parentheses makes a connection to another value. These connections—called "bindings" in Scheme—are tunnels that snake through a freeform, multi—dimensional space. Switchboard operators used to connect calls by plugging in patch—cords which served as tunnels for the calls to travel through. Any connection could go anywhere. Programming in Scheme requires making (and keeping track) of similar connections.

In most computer languages a variable can "be" ("be bound to" in Lisp) a character, a number or a compound of those (like a string, an array or a record). In Scheme, a variable can also be bound to things which can't be variable values in most languages. It can be bound to a function. A variable can be bound to an "environment," which is a frame in which a number of bindings have been made. A variable can be bound to a "continuation," which is the state to which the interpreter has progressed at a certain time. In the sample program, the first few active lines all use "define." The same form is used to bind a symbol to a primitive function:

```
(define nl newline)
```

or to bind a symbol to the result of a function working on a string:

```
(define vowels (string—>list
"AEIOUY"))
```

or to a number:

```
(define vowelcount 0)
```

or to a function (this one finds if one of our letters is a consonant):

```
(define consonant? (lambda (x)
 (pair? (memq (char—upcase x) consonants))))
```

Scheme very rarely deals with data at the gritty, granular level where Forth thrives. In fact, it is awkward to do so. Scheme encourages you to think in terms of abstract data-forms and the connections among them.

Lisp deals most comfortably with the "list," organizing information in long chains from which items of data hang. The advantage of this flexible dataform is that you can do anything with it. It can be tied in a loop to make a circular data-type. It can be made to branch into a tree by hanging lists from lists, and lists from them.

Scheme very rarely deals with data at the gritty, granular level where Forth thrives. In fact, it is awkward to do so. Scheme encourages you to think in terms of abstract data-forms and the connections among them.

Because you can design very subtle data-types, you can model very subtle ideas. As the manual says, "You begin thinking in Scheme, scheming in Scheme, perhaps even dreaming in Scheme." At the same time, Scheme's freedom forces you to impose the discipline which the language does not. If there is anything the language discourages, it is repetitive data—crunching like that done in a database.

This abstraction and flexibility allow so many choices that the programmer must deal with the sometimes daunting freedom. Scheme, fortunately, has many teachers to guide the user. It is a teaching language at MIT and Stanford. It is also a working language in artificial intelligence laboratories. Scheme is a language that was made simple to be teachable, and powerful to prowl on the very borders of artificial intelligence.

The unfortunate part of Scheme is its editor, named Edwin. It seems to be a hold—over from Scheme's origins on mainframes and minis. Edwin *does* keep track of parentheses—when you type a closing parenthesis, Edwin highlights the corresponding opening parenthesis. But you must type "(edwin)" each and every time you re-enter the editor after trying a program. It makes you pine for the Borland languages' integrated editor, with function-key commands.

Not shown here, but fascinating, are Scheme's extensions to Lisp. It provides fully object—oriented programming (at no extra charge) with SCOOPS and simulated parallel processing with "engines."

TI Scheme
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from:
Texas Instruments Incorporated
PO Box 2909
Austin, TX 78769
800-232-3200

Smalltalk

Reviewing: Digitalk's Smalltalk/v

Smalltalk insists that you think of your whole problem in terms of "objects"—intelligent entities that do things in response to messages from other objects. Your programming task is to design objects and to orchestrate their messages.

In Smalltalk, everything is an object. Objects belong to classes and they inherit abilities from the ancestor classes from which they are descended. Different kinds of objects will respond differently to the same message, because of the way messages are handled. Each class of object has "methods," i.e. the way the object will respond to messages. Strings, for instance, respond to the message "size" by returning their length. A set responds to "size" with the number of members it has. A cursor would respond that "cursor does not understand the message 'size'," because cursor—objects have no method that tells them how to respond to "size."

In the sample program, we have a section that creates several objects:

```
Inputline := Prompter
prompt: 'Please Type up to
   255 characters
   and hit return.'
default: ''.
```

To get the inputline, which is an object of the class string, Smalltalk creates three new objects. It sends the message "prompt: default:" to the class Prompter. Prompter responds by creating a prompter-object. The prompter opens a window on the screen with a message (the prompt). It waits for your input, then returns it to the class prompter, which returns it to you as a string. The window then vanishes. The prompter-object (its mission accomplished) disappears with it.

You can design new kinds of objects to do your work, you can teach old objects new tricks by writing new methods for the objects, or you can use the old objects in new patterns. Smalltalk allows you to choose. The most typical solution is to design new objects with the requisite abilities.

Programs in Smalltalk can have the same structure as the problem. An economic problem involving five companies will call for five objects which represent the companies. Their transactions will be represented by messages passed back and forth by the company-objects. The similarity between the structure of the problem and the structure of the program—"isomorphism" in the jargon—means that you can turn your common-sense notion of the problem into a Smalltalk program. Smalltalk, like Lisp, is heavily used in artificial intelligence applications; but while Lisp programs tend toward abstraction, Smalltalk programs are usually simulations with many correspondences between program elements and elements of the problem. This is the way of thought Smalltalk encourages.

Smalltalk is a graphic environment. When you use it, you are in a world of windows, animations and mouse-clicks. This is the interface that comes from Xerox's Palo Alto Research Center. It is the ancestor of the Macintosh interface and of Microsoft *Windows*. You can draw anywhere on the screen with a variety of tools. Smalltalk also comes with a fairly primitive drawing program that allows you to make backgrounds.

Smalltalk has more windows and

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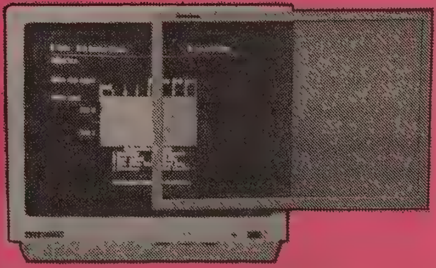

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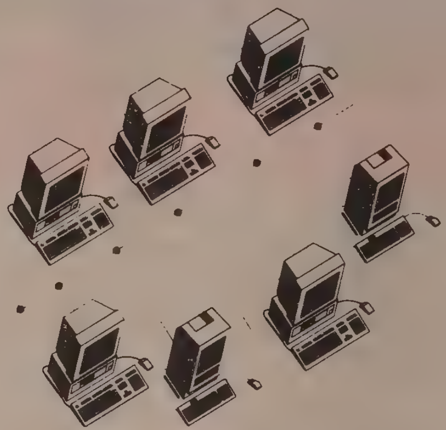

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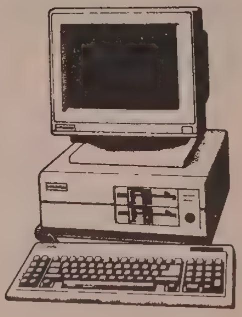

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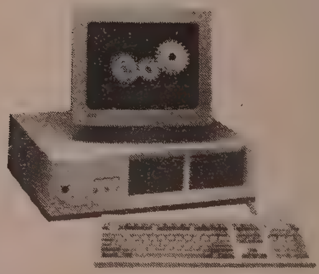

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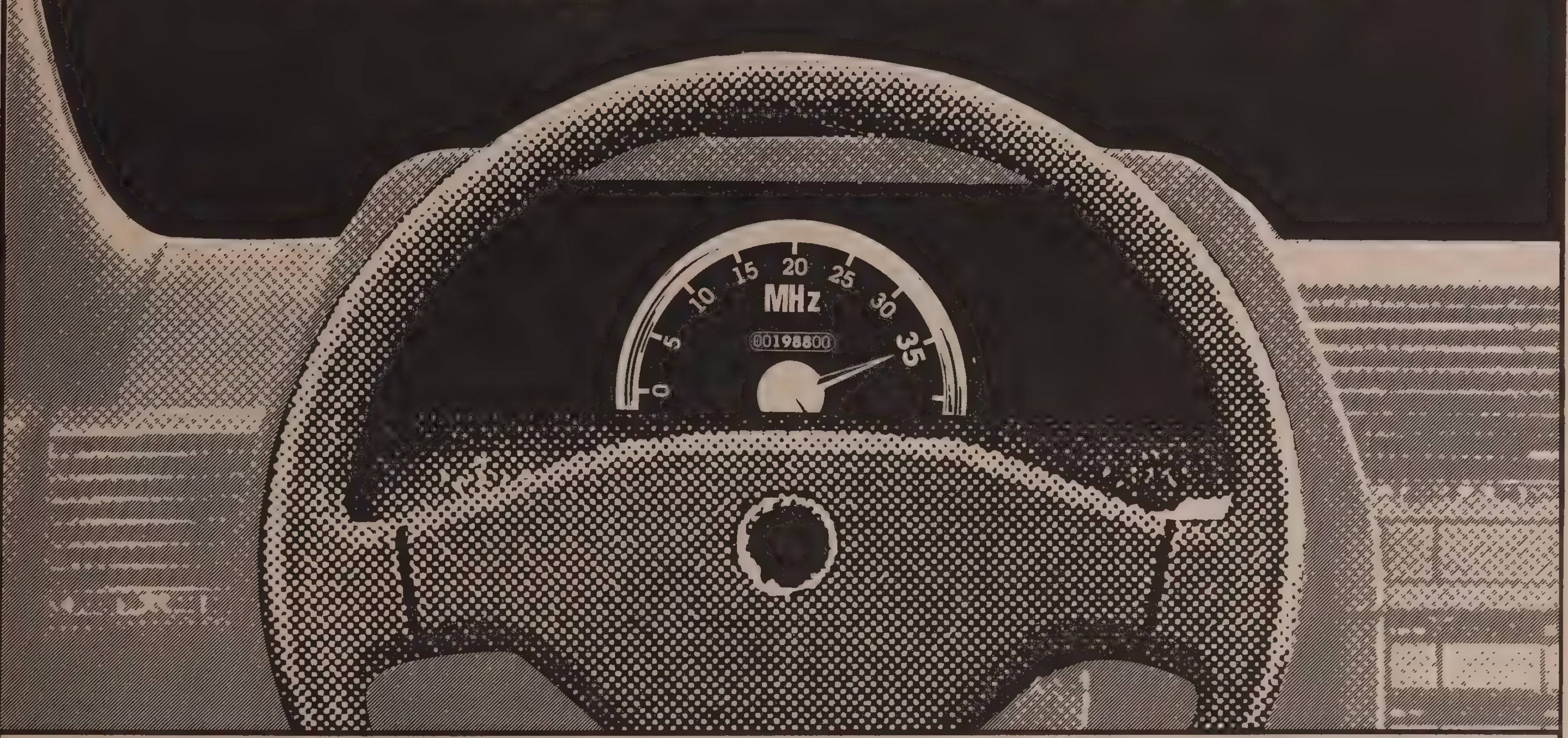

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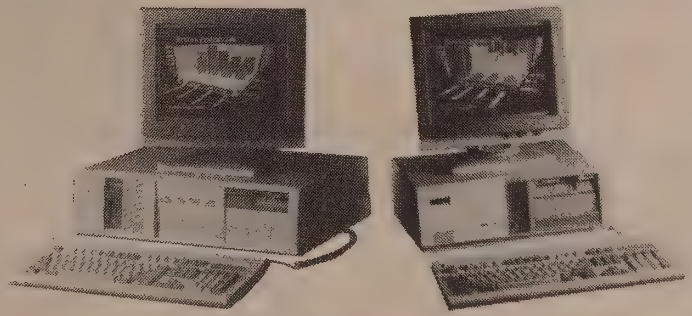

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menus than any interface I have ever seen. Text requires a menu to cut or copy or execute. When there is an error, Smalltalk opens an error-message window with an overwhelming amount of information. You raise the hood on an object by opening a window when you want to give it a new "method" or change an old one.

Smalltalk is ideal for modeling processes in which many things happen at the same time. The many windows, the parallel status of the various objects, and the graphic interface in Smalltalk all lead you to think in terms of simultaneous processes. Smalltalk simulates parallel processing. Very soon there will be parallel processors in which the parallelism will be actual, not just simulated.

If Smalltalk has a disadvantage, it is in its richness. Where to begin? You do not sit down, as you might with BASIC, and whip out a quick utility. When you begin with Smalltalk, you had best follow the tutorial that Digitalk provides. It opens a pathway into this busy world.

Smalltalk/v includes a free Prolog interpreter, integrated into the object environment.

Smalltalk/v
(for DOS PCs, XTs, ATs and clones, with at least 512K)
$99.95
Smalltalk/v 286
(If you have a 80286 processor and at least two megabytes of extended memory)
$129.95
from:
Digitalk, Inc.
9841 Airport Blvd.
Los Angeles, CA 90045
(800) 922-8255
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The Kindness Of Strangers

When you are learning a new language, you need all the help you can get. Here are some of the resources I discovered.

General

Benjamin Whorf helped to formulate the idea that languages shape our thinking. He wrote well. His book makes clear how a language determines what you can think.

Benjamin Lee Whorf
Language, Thought And Reality
Now Out of Print.
Check your library (if your community still has one).

AI Expert And Computer Languages Magazines

These two magazines specialize in the mysteries of computer languages and artificial intelligence. If you are interested in artificial intelligence, *AI Expert* is a good place to start. You'll learn what the issues are in the field and what tools people are using. *Computer Language* is about computer languages in all applications, not just AI.

$37.00 (each) for 12 issues
from:
Miller Freeman Publications
500 Howard Street
San Francisco, CA 94105
800-341-7378

On-Line Help

You can get a lot of help online through your modem. Look for information about the artificial intelligence languages in the AI Expert Forum on CompuServe, and several conferences on BIX, the BYTE Information Exchange. For Smalltalk information check BIX's Object Oriented Design Conference, the Digitalk Conference and the Smalltalk Conference.

Forth

Leo Brodie has written two books about Forth. The first, *Starting Forth*, should be a model for anyone teaching a language. It begins with the most elementary ideas in Forth and continues until you are dealing with the most subtle parts of the language. It is illustrated with delightful and appropriate cartoons that you will never forget.

His second book, *Thinking Forth*, is very different. It is really a book about programming at its heights, and Forth is the language that he uses to illustrate his points. As you read it, you realize what a gorgeous thing Forth can be in the hands of a master. You also realize how the power of the language drives its users towards simplicity and clarity in its use.

Leo Brodie
Starting Forth
Thinking Forth
Prentice Hall, Inc.
Englewood Cliffs, NJ 07632

Scheme

The manual that comes with TI Scheme is written for experts, I fear. *Programming in Scheme* was written by a teacher for students. Get it if you want a more accessible introduction to Scheme.

Programming in Scheme
By Michael Eisenberg
Edited by Harold Abelson
$32.50
from:
The Scientific Press
507 Seaport Court
Redwood City, CA 94063
415-366-2577

APL

To learn APL, you need a friendly but thorough book of instruction. *APL: An Interactive Approach* is a very usable book with deceptive exercises. They are deceptive because they are so gently graded that it is difficult to fail with them. The ease does not prevent them from being a complete introduction to the language. This is a good book.

APL: An Interactive Approach
By Leonard Gilman and Allen J. Rose
$30.50
from:
John Wiley & Sons
New York, Toronto & al.

STSC has undertaken to promote APL and provide education in the language. STSC teaches classes for beginners all over the country. Among those available are "Introductory APL," "APL for Actuaries," and "APL for Financial Analysis." A number of these programs are coming up on the West Coast this fall. If you put together a big enough group at your company, they'll send a trainer for a private training. You can also get a complete line of publications about APL from STSC.

STSC, Inc.
2115 East Jefferson Street
Rockville, MD 20852
301-984-5000

Northern California has the good fortune to have a remarkable APL user's group. If you suspect APL is for you, or you want clarification, you can talk (as I did, at length and to my profit) to the very lucid Curtis Jones, who is the APL BUG Secretary—Treasurer. You can call him at 408-292-4060.

APL:

A Programming Language

Reviewing: STSC's Pocket APL

APL (A Programming Language) is probably the most compact programming language in use. It certainly has the most profound effect on the thinking of those who use it. Before it became a computer language, it was a notation system for writing down and thinking about mathematical problems.

APL has a set of symbols which represent functions to operate on

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data. Standard APLs convert your keyboard so you can type those symbols with one keystroke. *Pocket APL* from STSC allows you to substitute keywords for the APL symbols, thus avoiding one of the roadblocks to learning this remarkable language. Though STSC markets it as a low—cost introduction to its line of APLs for DOS, Mac and VAX machines, *Pocket APL* seems to be complete. It is not a partial language.

More can be done in a few APL symbols than with many symbols in conventional notation—not only with the computer, but also in your own mind. APL's notation is every bit as precise as the conventional notation and amazingly more compact. It was designed to be "a common language for man and machine" in the words of the 1973 booklet "APL and Insight." The initially steep learning curve is followed by a quick reward. You find yourself formulating complicated mathematical operations in a few symbols.

APL's favorite data type is the row-and-column matrix. (This means that it is not particularly appropriate for free-form data like text or the lists which LISP so loves.) Many APL functions work on every element of a matrix at once. If you wanted to add 3 to every item in an array (say, R), most languages would require a number of nested loops:

```
for row = 1 to m
for column = 1 to n
R[row, column] := R[row, column] +
3
next column
next row
```

The equivalent APL expression is

```
R <— R + 3
```

whether R is a matrix or a scalar. APL achieves its brevity of expression by hiding the details of how it deals with the matrices.

The sample program deals with text and thus does not show APL's raw power in dealing with large arrays of numbers. Even so, this is an amazingly dense program. The first typically APL expression is the line

```
areV is inputline member vowels
```

Inputline is a string; in APL it is treated as a vector (a one—dimensional array) of characters. The "member" operator works on the whole array at once. It returns a new vector, with a "1" (for true) in each location where there was a vowel in inputline, and a "0" otherwise. If Inputline was 'Hello'(APL uses single quotes to mark a string), then inputline member vowels would return the vector

```
0 1 0 0 1
```

The vowel and consonant counts are found with the "+/" operation, which adds all the elements in a vector. Since areV has a "1" for each vowel, the sum of it will give us the vowel count. The total is just the sum of vowelcount and consonantcount.

A line of APL code often carries instructions that would take many lines, or even a whole program, in another language. For instance:

```
outputline[areV/iota rho inputline]
is 'V'
```

It tells us that certain elements of outputline, those whose position is listed inside the square brackets, will be replaced with the letter 'V.' APL works from right to left inside of the square brackets. "rho outputline" gives us the length of outputline—5 for the five characters in 'Hello.' "iota" gives us a vector with one number for each position, ascending from 1 to the number of its argument. "iota rho inputline" is "iota 5", or

```
1 2 3 4 5
```

Now we want to select only those numbers that match up with vowels in inputline. The compression expression "areV/iota rho inputline" means "Give me only the members of (1 2 3 4 5) which match up with a 1 in areV (0 1 0 0 1)".

We match areV with the result of "iota rho intputline"

```
1 2 3 4 5
0 1 0 0 1
```

and the result is a new vector (2 5). The expression "outputline[2 5] is 'V'" makes positions 2 and 5 in outputline become 'V.' In other words, 'Hello' becomes 'HVllV.'

APL does go about things in a unique way. You can use your visualizing sense to design APL, and APL to codify what you can see with your mind's eye. Experienced APL programmers can look at an input matrix and the desired output matrix and tell what APL formula will accomplish the conversion. Consider the formula "areV is inputline member vowels." It is a formula that returns a vector the same length as inputline, with 1's where inputline has vowels, and 0's where there is some other character. If the inputline is

```
'Hello'
```

then areV is

```
0 1 0 0 1
```

APL's functions are so powerful that the user can explore a whole line of inquiry in one line of code.

The vector areV lets you *see* the vowel pattern of the input line. While exploring the language I used the easy conversion between matrices you see and APL functions to solve pattern-recognition problems that had interested (and eluded) me for years. APL seems equally applicable to the most abstract and the most practical problems.

Another characteristic of APL is its interactivity. Most languages take so many lines to define any interesting function that all the work has to be done in full-blown programs. You can't just fool around calculator style. But APL's functions are so powerful that the user can explore a whole line of inquiry in one line of code. In APL, you can "just fool around," because you can do so much with so few keystrokes. As many observers have noted, this "fooling around" is the heart of creativity.

I must admit I am smitten with this language. It is very condensed and the learning curve is steep. But my, what a payoff! If you deal with complex data, you owe it to yourself to try APL.

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A Good Journey To You

Do the different languages shape your thinking differently, as Sapir and Whorf suggested?

These programming languages do give you very different metaphors for your problem. It can be seen as a problem in manufacturing, and Forth used to make a unique factory that will build answers. It can be taken as a problem in connection, and a network of pipes woven to solve it in the Scheme dialect of Lisp. In Smalltalk, the answer comes from commerce among objects. In APL the problem will be seen in terms of latticeworks or matrices. The solutions will be compact transformations of the problem matrix.

The languages also direct your attention to different aspects of the problem, and suggest different kinds of solutions. Only in Forth do you need to think about specific ASCII codes and exact memory locations. Scheme ignores the details of memory and codes, and smears the distinction between data and function which is very important in other languages. Smalltalk makes you design the screen display and think about "objects" and "messages." APL is so attached to arrays and vectors that the input, the output and several intermediate results (like areV and areC) are all cast in that form.

It seems that computer languages confirm the Sapir-Whorf hypothesis in a way natural languages could not. Languages *do* shape the way we think about the world.

If you learn one of these languages as your first computer language, you will gain the skills without habits from other languages getting in your way. For those whose primary interest is artificial intelligence, TI's Scheme and Digitalk's Smalltalk/v are a good starting language. If you want to work with lean speed, Micromotion provides Forth versions for several machines. For people who want to handle large amounts of financial or numeric data, Pocket APL is a good first language, though you will soon want STSC's full—scale APL*Plus.

If you choose one of these as a second language, you get to view any problem from two points of view. The insights about the problem you get from one language combine with those from a second, as the vision from two eyes combine two flat views to make three-dimensional vision. The result is more than the sum of the parts.

Finally, if you take up one of these tongues, you must learn to explain what you create. After you carry off a few tricks, other programmers will all want to know about "that language you have there," the one that has made all the difference.

continued on page 116

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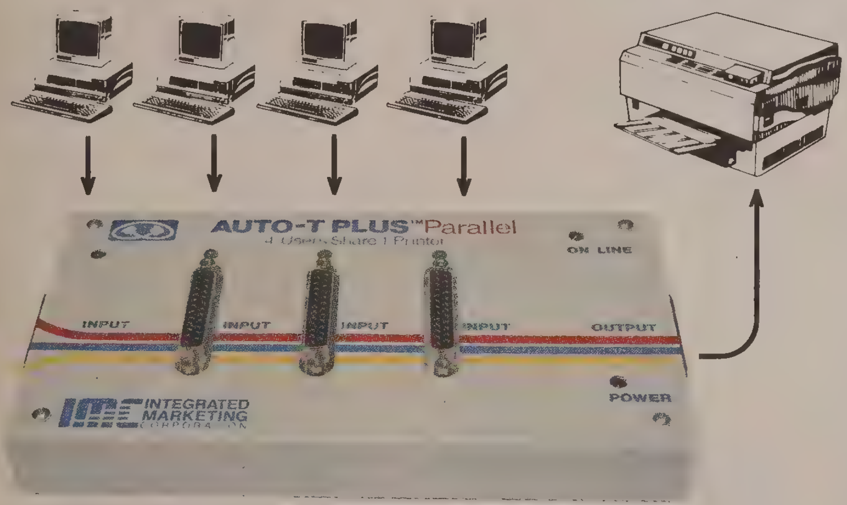
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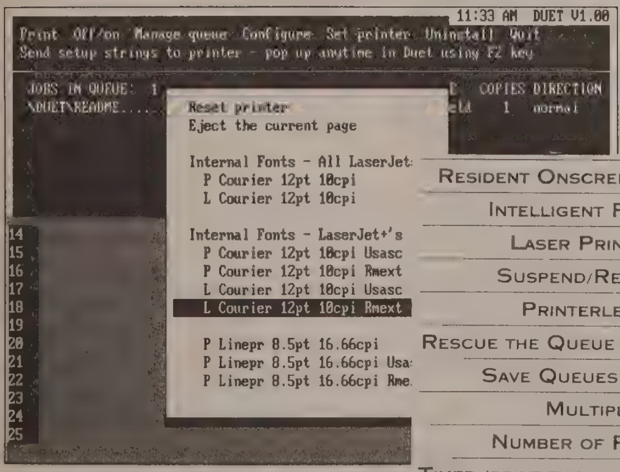

```
                                                  11:33 AM  DUET V1.00
Print  Off/on  Manage queue  Configure  Set printer  Uninstall  Quit
Send setup strings to printer - pop up anytime in Duet using F2 key

 JOBS IN QUEUE:  1                                  E   COPIES DIRECTION
 \DUET\README.....   Reset printer                  eld    1   normal
                     Eject the current page

                     Internal Fonts - All LaserJet:
                       P Courier 12pt 10cpi
                       L Courier 12pt 10cpi
14
15                   Internal Fonts - LaserJet+'s
16                     P Courier 12pt 10cpi Usasc
17                     P Courier 12pt 10cpi Rmext
18                     L Courier 12pt 10cpi Usasc
19                     L Courier 12pt 10cpi Rmext
20
21                     P Linepr 8.5pt 16.66cpi
22                     P Linepr 8.5pt 16.66cpi Usa:
23                     P Linepr 8.5pt 16.66cpi Rme.
24
25
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Les Crane's Software Boutique

Erstwhile talk show host Les Crane now enjoys success with The Software Toolworks.

Games and Tutors For Fun And Profit

By Mike Markowitz

Television aficionados from the '60s may remember Les Crane's short-lived late-night talk show which was distinguished by a confrontational style, controversial guests and a failure to unseat Johnny Carson. His radio talk show fared somewhat better, and his recording of "Desiderata" was the forerunner of an entire genre of New Age cosmic-muffinism.

Unlikely as these beginnings might seem to the casual observer, Les Crane is now chairman of The Software Toolworks, based in Sherman Oaks and purveyors of such products as *Software Golden Oldies, Chessmaster 2000* (which won the Software Publishers Association's award for best entertainment program in 1987) and a revolutionary typing tutor, *Mavis Beacon Teaches Typing*.

And, as software publishers struggle to outdo each other in the corporate business area, Crane's company enjoys success in the much-scorned home and educational markets. Which is fine with Crane, who envisions no change in The Software Toolworks' strategy.

The biggest trend in personal computing in the last couple of years is that it's gotten more boring and more business-oriented .... Do you think the market for entertainment software is going to dry up as things get more and more boring?

Oh no. I don't think the market for entertainment software is softening or will at all. If people present to the marketplace provocative programs that are challenging so they can be played many, many times, I think there will be a consistent and huge market in entertainment software.

We are diversifying in our company. We started as primarily an entertainment software operation — but two out of the next three products are business-oriented, and the last product was education-oriented, although it does have some game features in it, for diversion; *Twist And Shout* (another Software Toolworks release) is a very exciting sideways printing utility; it also has a banner printer and a print spooler. *Secretary Bird* is an integrated word processor with a spell checker, a filer and a spreadsheet. The third of our new entries is a game called *Life And Death*, which is going to stand the market on its ear.

Isn't the description of *Mavis Beacon* as an "artificial intelligence" a bit of marketing hype? There's a famous definition of AI as "anything computers don't do well yet..."

Artificial intelligence to me means a program that has an ability to *learn*. *Mavis* definitely does that. *Mavis* analyzes carefully everything that the student is doing within an individual lesson, and then lesson-to-lesson, and based upon her experience of the student, she creates the future lessons. Taking into account such factors as the student's attention span, even, the length of time the student spends with the lesson, the particular keys the student misses, the way the mistakes are made, transpositions, rows, the strengths of various fingers, some fingers working more quickly than others, and so on. Based on this tremendous database that she compiles on the student's activities and progress, both current and past, she begins to construct lessons designed specifically to meet the student's needs. If that isn't an intelligent system, or an expert system, then I don't know how you would define it.

Do you see other applications for that technology?

Certainly there's an artificial intelligence working in *Chessmaster 2000*, and we are constantly honing the algorithm for that product. We think the synergy that comes from working on both the typing teacher and the chess program is going to

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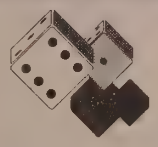

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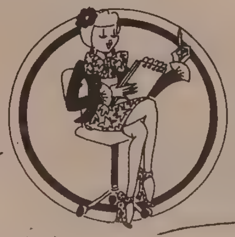

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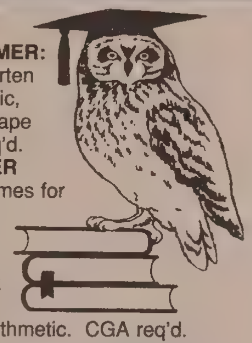

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result in finer software down the road…

The examples I was thinking of are language learning and music learning…

Absolutely. Language is an area in which we are particularly interested. We are working on several bilingual versions of our products, and we think the next step from there would be the teaching of language via computer, and we're exploring that with part of our research effort.

One thing that struck me is the number of different computers you're supporting with your product line. My impression is that in two years there's going to be the IBM PC standard, the Macintosh standard, and a lot of little marginal junk that nobody pays attention to…

Well, I don't think it's fair to call the Amiga and the Atari ST junk. They might have been a mistaken area to pursue, given the economic conditions in the marketplace today. They are certainly *wonderful* machines. I may agree with you — they may not survive. But the Apple II, and especially the Apple IIGS, is going to be around for a long time.

What makes you bullish about the IIGS? It's shipped about a quarter of a million units, while there's an installed base of over four million Apple IIs and compatibles.

I think that just the life of the hardware is going to keep the software market viable. It's just a hardy piece of hardware, and we're going to be living with that for years.

Did you feel that you were going out on a limb with a product like *Mavis*, or did you know from the beginning that it was going to be a winner?

You never know. We bet the store on *Chessmaster*, and we invested a major portion of *that* in *Mavis*, but we had a gut feeling that the market was ready, the niche was open, and an attack was ready to be mounted.

Have you gotten to play with the (IBM) PS/2s yet?

No…we're still having a lot of fun with MS-DOS.

You're the first person that I've ever heard use the words "MS-DOS" and "fun" in the same sentence!

Well, it's fun because it's a challenge. We're very proud of what *Mavis* looks like on the clones. We're very proud of what *Chessmaster* looks like on those machines. So it's fun for us. Anything that's challenging is fun.

A lot of the products that come across my desk are junk. It's amazing to see the poor quality of documentation, the poor quality control in coding…Do you have any secret? How do you get excellence?

We are a boutique shop, we don't release a wide band of products. We just release one, two or perhaps three products a year, in all versions. And the company is managed by an obsessive-compulsive, who hires people of a similar stripe, so he makes sure that if it's not perfect, we don't ship it.

What games have you seen lately that you like?

The thing that I'm most excited about is our new game, which is called *Life And Death*. It's a surgical simulator. The user gets to do a couple of operations: a heart operation and an appendectomy. The graphics are extraordinary and the tension is excruciating. And the patient will either live or die, based on how you perform *all* the steps in a successful operation.

Did you actually consult wth surgeons in developing the program?

Many. Deeply. That's why the program was two years in development. The first versions are for the PC, the Mac and the Amiga.

Are you a hawk or a dove on copy protection?

A hawk. We don't copy protect our business software — the stuff that has to be installed on a hard drive. But everything else we have copy-protected and we will continue to copy-protect. And I do that as much to protect the user's investment as to protect ours. If somebody goes out and spends $40 or $50 for a piece of our software, by copy protecting it and keeping the number of bootlegs down, we're protecting that person's investment as well as our investment in research and development — I mean, pirated copies of software out there cheapen the value of the software, do they not? If the guy next door got it for nothing, then how much is yours worth?

We've priced our products *below* the prevailing market prices. *Chessmaster 2000* — ten dollars below the competition, and it's light-years better. We did the same with *Mavis Beacon*. In order for us to do that we have to capture our fair market share. Now, since the installed base of personal computers doesn't compare with the installed base of videocassette players or phonographs, we have to earn a fair return on our research and development dollars. If people are copying our software and seriously eroding our sales it's going to deny us the opportunity to keep pushing the frontiers of software. So I just think it's a necessity. ☐

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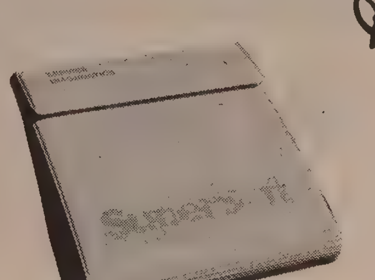

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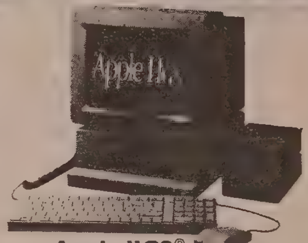

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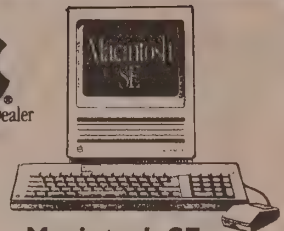

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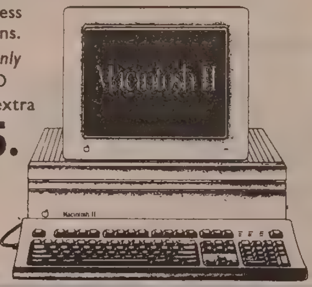

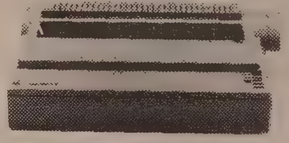

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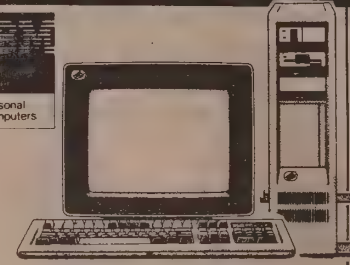

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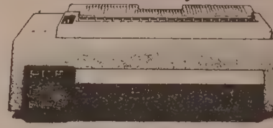

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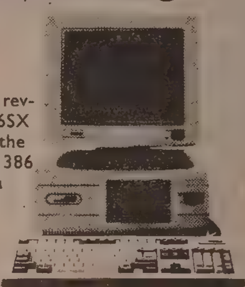

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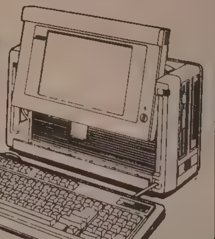

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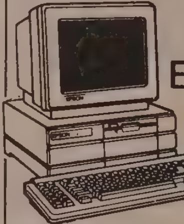

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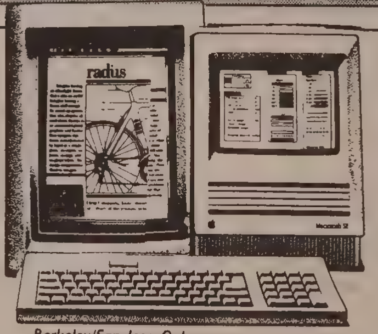

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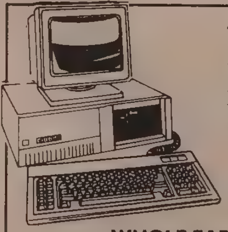

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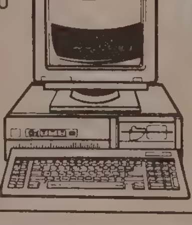

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"Like it or not, what we're defining right now is the foundation for computing for the next 20 years," says Jonathan Seybold, 45.

He's sitting on the lawn behind a Malibu residence which houses Seybold Publishing and Seybold Seminars. From here the view is glorious—through tall eucalyptus trees, one can see gentle swells rolling in to Paradise Cove a half mile away, while, out in the water, a fishing boat sways softly at anchor.

It's an idyllic scene, one that is strikingly out of sync with the disturbing message that Jonathan Seybold delivers with a mild-mannered urgency. While birds chirp happily in the trees and the shouts of children on the beach waft up towards the house, Seybold calmly talks about the end of computing as we know it.

"DOS will be around for a long time, but it will never take us to the new generation of computing," he says. "And for DOS people it's a very frightening thing, because that's a very significant transition."

The death of DOS has been bandied around by industry pundits ever since IBM and Microsoft announced OS/2. And for just as long there have been counterclaims that the DOS user base was so large that the format would simply endure regardless of innovations in architecture or operating environments. Like a colony of coral, the DOS world is so established, and provides so much fodder for thousands of other organisms, it is nearly immortal.

STORY: JEFF SPURRIER • PHOTO: ANN SUMMA

Jonathan Seybold on standards, interfaces and the computers of the '90s

But for Jonathan Seybold, the laser printed writing on the wall is clear: DOS is doomed. The revolution has begun.

Toward More Effective Communication

The two companies that Jonathan Seybold heads up — Seybold Publishing and Seybold Seminars — occupy a niche one step removed from the mainstream world of micro computing: the use and application of computers in publishing. For Seybold, however, "publishing" is not limited to newspapers, magazines and books. Just about any form of information short of moving images falls within the Seybold vision of communication: memos, letters, presentations, proposals, databases all lie along an unbroken string of data that Seybold sees as a continuum.

"Our focus has always been that as you move up the continuum, you start to get interested in more sophisticated formats, typography and ways of presenting information," he says. "And I've never viewed that as being something that is clearly distinct from what happens in an office."

The advent of increasingly sophisticated word processing programs seems to bear out Seybold's assessment. *Word* 4.0 and *WordPerfect* 5 both seem to be targeted towards users with more elaborate and complex needs for their final output on paper.

"People are starting to realize that there is in fact a continuum," he says with satisfaction. "And companies are starting to position products at points along that continuum. They want to cover as broad a spectrum as possible, but also [have the product] be optimized for some point. As you move up the continuum you get more complex processes for producing a document. More people become involved and the document itself may have a longer life cycle. It becomes a more important document, so you try to communicate your information more effectively."

And he should know. Seybold and his associates have conducted a series of informal experiments in this field to see how different people respond to different quality output.

"The reason you've gone to the expense of typesetting over the years is because people pay more attention to it," he says. "Some years ago, when we first got the LaserWriter, I was working on a draft policy statement for the Malibu Township Council. I made two drafts with identical content off of the same printer. The only difference was that one looked typewriter-written and the other used typography. I only changed the typeface.

> **'DOS will be around for a long time, but it will never take us to the new generation of computing,' Seybold says. 'And for DOS people it's a very frightening thing, because that's a very significant transition.'**

"I gave both drafts to two committees that were meeting at the same time. The one that was 'typeset' got approved in 15 minutes and had two minor changes made in it. The 'typewriter' one took three hours and they still haven't finished with the changes. They treated the 'typewriter' version as something that was very preliminary whereas the 'typeset' version looked finished and they didn't want to touch it much."

For 25 years Seybold and his family have been involved in the effective communication of information. In the early 1960s, John Seybold, Jonathan's father, formed what may have been the world's first computerized typesetting company in the aptly named town of Media, PA. His company was called ROCAPPI, an acronym for Research on Computer Applications in the Printing and Publishing Industry. With a $300,000 computer that boasted one-third the power of an Apple II, the Seybolds set about to turn the publishing industry on its head. Using a RCA 301 computer with 20K of 6-bit memory, ROCAPPI was soon producing major volumes of fully paginated output for book and magazine publishers. At a time when hot metal linecasters were considered the state of the art, ROCAPPI's approach was a radical departure from the established norm and the Seybolds' vision was met with some resistance from within the publishing industry.

ROCAPPI was sold to Lehigh Press in 1967 and three years later the elder Seybold and his son quit the company and began running a series of industry-oriented seminars. A year later, the success of the seminars led directly to the *Seybold Report* (now known as the *Seybold Report on Publishing Systems*), a newsletter dedicated to the use of new technology in printing and publishing.

Now the Seybold Publishing wing has a companion report to the *Seybold Report On Publishing Systems*: the *Seybold Report On Desktop Publishing*. And, since 1980, Seybold Seminars has brought together the leading vendors and end users in electronic publishing for a week of meetings in March. In 1986 the Seybold Desktop Publishing Conference was started to address the growing merger of the computer and publishing industries. (This year's conference takes place September 14 – 17 at the Santa Clara Convention Center.)

It all may sound somewhat dry until you realize that in the *Seybold Reports*, Jonathan has chalked up an impressive list of predictions over the years. In 1973 he anticipated the importance and arrival of personal computers; in 1978 it was laser printers; in 1980 it was WYSIWYG displays, mouse/icon user interfaces, and networked PCs; and in 1983 it was desktop publishing.

So when Jonathan Seybold says DOS is doomed, it's time to start shopping around.

Riding The Fourth Wave

The Seybold view may cause heart palpitations at *Time* magazine or Simon & Schuster, but what does all this have to do with me or you? Quite a bit, says Seybold, for increasingly the needs of the publishing industry are becoming the driving force for the computer world. The itch that a monolith like the L.A. *Times* feels may soon be scratched by a divergent host of tiny outside developers scattered throughout the computer industry. We in the Fifth Estate have always recognized our importance in shaping opinions. Spear-heading a drive for new technological directions is another matter.

It all boils down to three simple words: The Fourth Wave.

Seybold first proclaimed his concept of merging the mass market computer industry with publishing in a pronouncement in 1987 at the company's annual March seminar. The catch-word used was "The Fourth Wave," and it prompted some heated discussions and basic denial of reality by attendees.

To understand the Fourth Wave from a publishing standpoint, it's necessary to go back in time to the late 19th century when the First Wave occurred with the introduction of hot metal type. A half century later the Second Wave occurred with the advent of photo composition in the 1950s, a process that was augmented in the 1960s with some very basic computer programs used to drive phototypesetters.

Then in the 1970s came the Third Wave, when large publishing concerns farmed out requests to outside vendors for multi-user turnkey systems. And right now, thousands of these million-dollar proprietary extravaganzas are still in place. Systems in places like the L.A. *Times* are incredibly complex, offering everything a large publishing venture might require: multi-user, multitasking, networked computers with highly advanced copy control and flow of data.

"The L.A. *Times* Coyote system is a perfect example," says Seybold. "There are Tandem computers there, but 90% of what lies underneath is proprietary hardware and software. (In the Third Wave) the requirements for publishing went well beyond the state of the art in the computer industry. You had to have proprietary systems. Everybody in publishing

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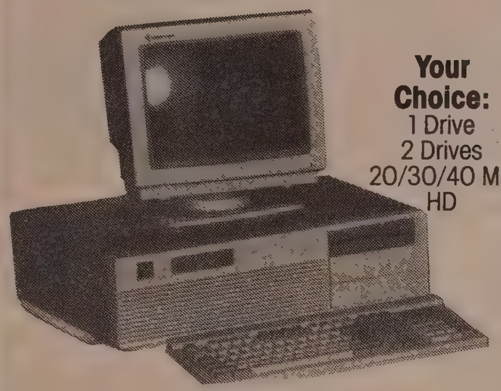

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thought that was the natural way of doing things."

But nature apparently hates proprietary systems.

"While (the Third Wave) was going on, the computer industry changed dramatically, and now the off-the-shelf tools available provide excellent platforms for publishing and there is no longer any need to use proprietary hardware and software," Seybold continues. "It's very clear now that you can do the entire publishing job on a PC in terms of editing text, creating graphics — other than high quality color pictures — and formatting pages. The thing you do not get is the information and copy management that is part and parcel of a large publishing operation. The L.A. *Times*, for example, has 500 terminals tied into its system. And there's the wire service, bureaus all over the world, all tied into one global network. That level of sophistication is not something you can get off the shelf from your local computer store."

But the more Jonathan Seybold talks, the more you realize that the time is coming when you will be able to pick up your very own Global Network shrink-wrap kit from your local dealer. If the "publishing world" (which in this sense covers everything from the smallest office to *USA Today*) needs it, he maintains, it will be built.

"If you look around at all the applications, it's the publishing application that requires every bit of what the next generation of computers is all about," he asserts. "So from a computer industry standpoint, publishing is the application that is driving the future. And from a publishing standpoint, what they need is now being invented. The two are coming together."

This ultimate convergence of end user need and technological innovation marks the end of a long trail of computer design, which Seybold says ultimately wound up at the dead end known as DOS. The culprit in this case was not Microsoft or IBM, but rather the original designers of the personal computer, those nerds and techies who placed a wee bit too much emphasis on the word *personal*.

"In the late 1970s when the microcomputer burst on the scene, it was developed by computer people for computer people," says Seybold. "And their whole idea was basically taking what a computer had been, a typical mainframe or mini, shoving it into a box, and giving it to one person. It was very much personal computing.

"Many of the people who were working on computers then were not aware of what had been taking place at Xerox PARC [Palo Alto Research Center] in the '70s. The PARC vision was about a totally different kind of computing — making the machines adapt to man rather than vice versa. PARC was all about having a consistent graphic user interface across all applications, about communicating graphically, taking all the things we had learned about written communication since the Middle Ages and using them as part of the mainstream tools available in a computer system. And the PARC model was about networking. People do not work individually but in groups. Their model was very different from the IBM or DEC models, which were mainframe-centric, with a priesthood around a central computer. The model here was workgroup-centric. The workgroup was the center of the universe, and the computer and its databases were peripheral to that."

The one thing that Xerox didn't get right was the flow of information, says Seybold, relying on the office set-up where a file is taken from a

> 'If you look around at all the applications, it's the publishing application that requires every bit of what the next generation of computers is all about. So from a computer industry standpoint, publishing is the application that is driving the future.'

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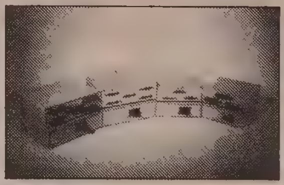

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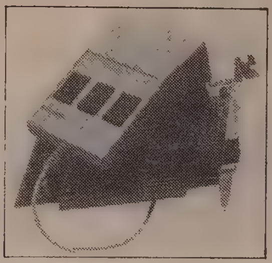

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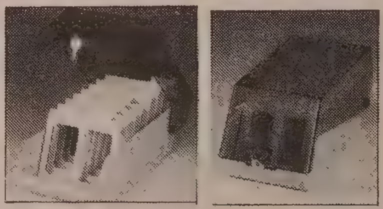

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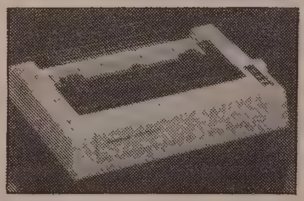

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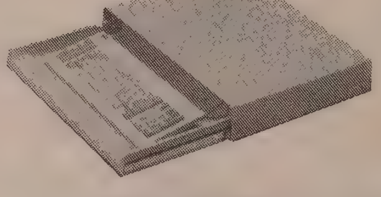

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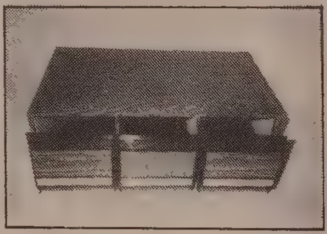

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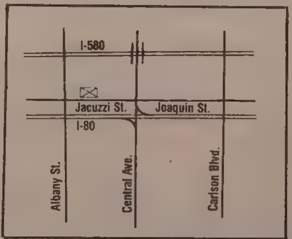

> **'Everybody in the computer industry recognizes the fact that we're laying the foundation for computing in the 1990s and the stakes are enormous. Apple and Microsoft and IBM and the UNIX people are all jockeying for position to be the one who gets to define the marketplace.'**

cabinet, used on a desk, and then replaced. It was left to the publishing people, "people who were heavily into sharing," to perfect the design of copy flow. Where that leaves us now, he adds, is not at a juncture but at the end of a generation.

"We're about to embark on a new generation of microcomputers that pulls all the stuff together — the graphic user interface, very powerful computers on everyone's desk, multi-tasking, multi-processing, multi-user environments, networking," he says. "And I think everybody in the computer industry recognizes the fact that we're laying the foundation for computing in the 1990s and the stakes are enormous. This is a real hardball game. Apple and Microsoft and IBM and the UNIX people are all jockeying for position to be the one who gets to define the marketplace."

Dis-Continuity

The ten million DOS machines out there are not a base that can be ignored, Seybold acknowledges, but the time has arrived when what he calls a dis-continuous change has become inevitable.

When IBM saw the IBM 360 leap to enormous success, the company became a prisoner to its own user base, where any radical evolutionary change became nearly impossible. A similar situation has existed in the microcomputing world, but now, says Seybold, a change is in the air, and once the dis-continuous break with the past has been made, a new standard will be in place for a long time.

According to Seybold, there is not any one product or breakthrough that is forcing this jump; rather, it's an intellectual realization, a new vision of computing and what the machine can do for users. And as he has said, the stakes are enormous — especially for those demi-gods who occupy the rarefied atmosphere of operating environment design.

"DOS is never going to get us to this next generation of computing," he says. "It's far too limiting. DOS users face the prospect of a jump [to the new environment] whereas what Apple has been trying to do is walk its way in. Some of the user interface is in place [in the Apple world] but what it doesn't have in place is the multi-tasking, multi-user operating system. So while the DOS world is facing a jump to either OS/2 or UNIX, the Mac challenge is to evolve a similar sort of environment while at the same time keeping what the user and the program see unchanged. And at the same time [Apple must] do a major overhaul of the operating system that lies underneath."

It's startling to hear this oracle of the future come out as a fan of UNIX, but Jonathan Seybold makes it clear that he believes the often-criticized operating system deserves a shot.

"If you look at where we have to go — an environment that is multi-tasking, multi-user, networking and heterogeneous, one realizes there already is an operating system that is what OS/2 wants to be, and that's UNIX," says Seybold. "It is the only heterogeneous system that is supported by virtually everybody in the business. The problem is that there

continued on page 178

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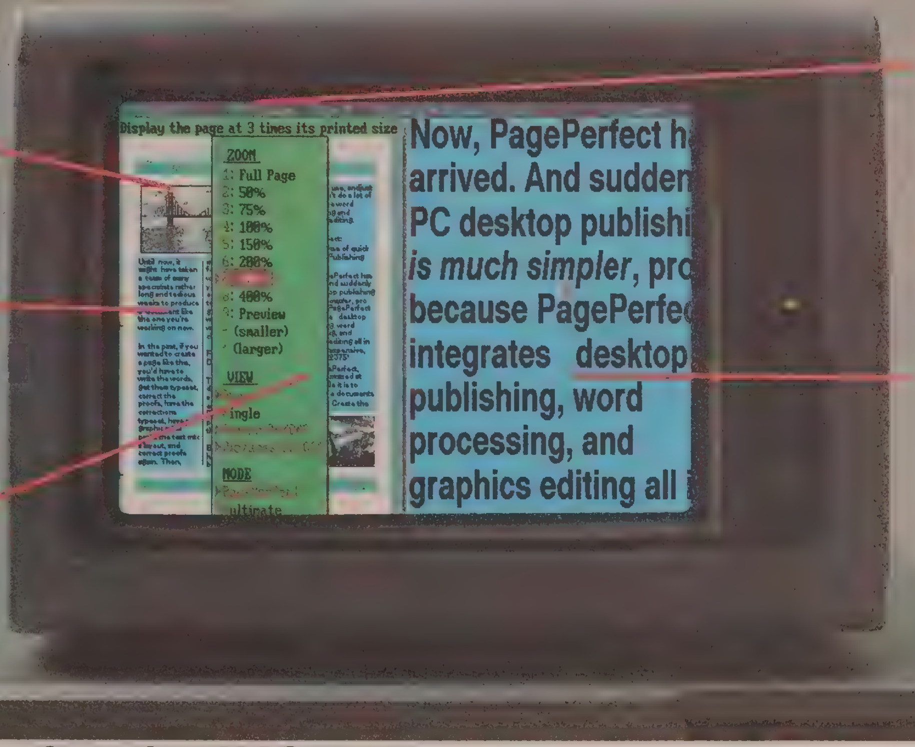

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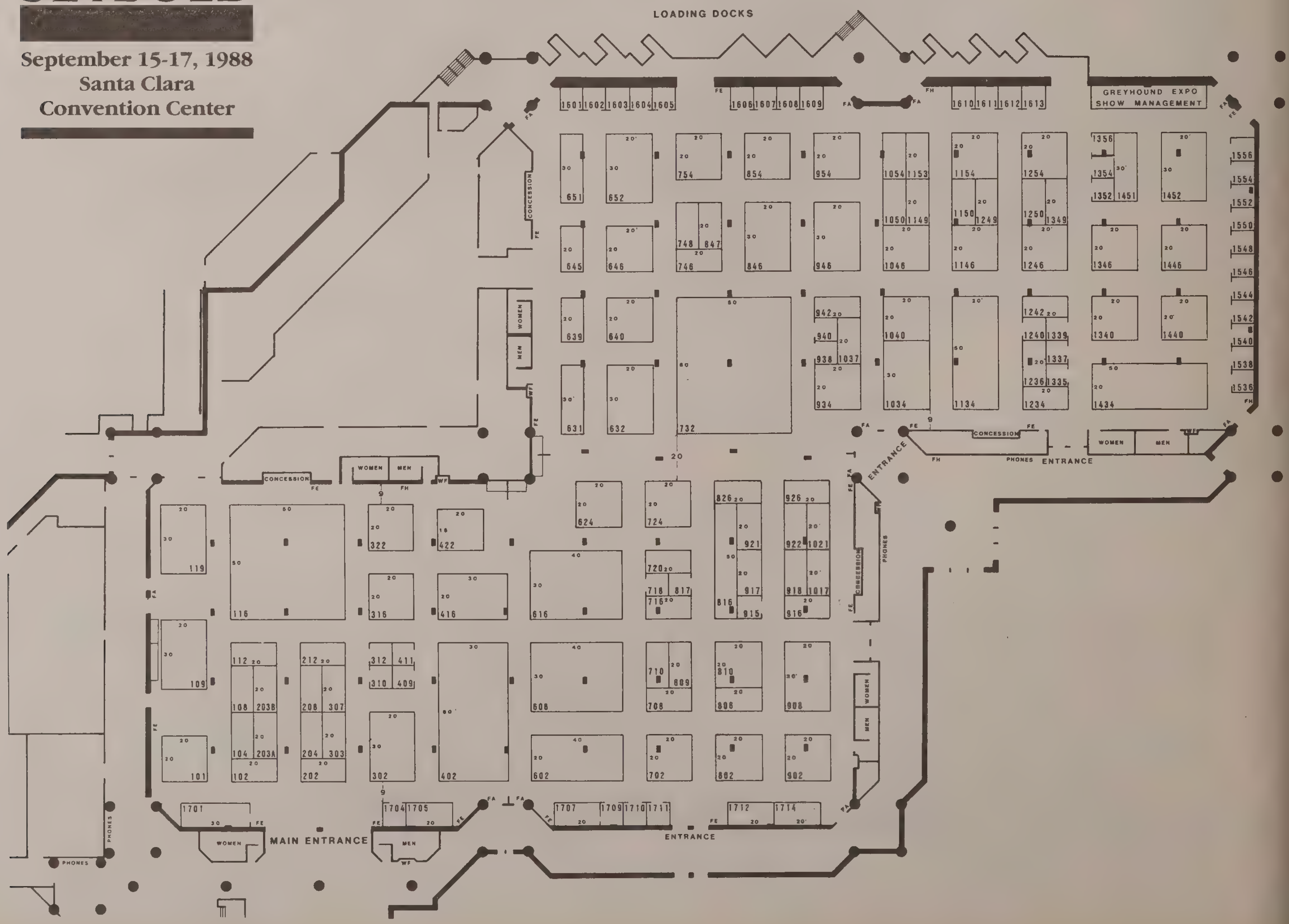
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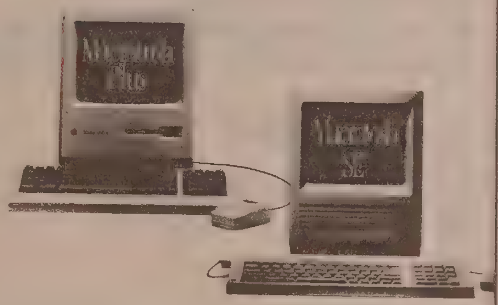

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SEYBOLD DESKTOP PUBLISHING EXPOSITION

SEMINAR SCHEDULE

TUESDAY, SEPTEMBER 13

(Afternoon Tutorial. Optional seminar available without charge to all registered seminar participants.

History of computerized pre-press.

Mac vs. PC vs. Unix

Characteristics, strengths and weaknesses.
Terminology.

Page composition software

The process of h&J and page make-up.
Inter-word spacing, hyphenation/justification, page make-up, style sheets, merging text and graphics.

Printers and RIPS

Characteristics of output printers
What is a RIP and what does it do?

WEDNESDAY, SEPTEMBER 14

Morning

DTP at the Crossroads:

Steve Jobs, NeXT
John Warnock, Adobe Systems
Scott McNealy, Sun Microsystems
Alan Kay, Apple
Paul Brainerd, Aldus
Eddy Shah, Messenger Newspapers

Luncheon

Concurrent sessions:

DTP Operating Environments

PM vs. Mac vs. Open Look.
Mike Maples, Microsoft
Larry Tesler, Apple
Bill Joy, Sun Microsystems

Composition Programs

What are the differences between page layout, long document and word processing? Are they all converging?
John Meyer, Ventura
Paul Brainerd, Aldus
Leon Williams, MicroPro

PostScript Pro & Con

Editing Tools

Editing tools for writing, editing and revising text.
Henry Kucera, Houghton Mifflin Co.
Lee Linsky, Ashton-Tate
John Hild, Xyquest

Database Publishing

Michael Kieran, Desktop Publishing Associates
Sue Morgan, Softview
Larry Bohn, Interleaf

THURSDAY, SEPTEMBER 15

Morning

Concurrent Sessions:

A Networked Publishing Environment

What's available? What works? What more is needed?
John Meyer, Ventura
Dave Boucher, Interleaf
Daniel Cheifetz, Odesta

Adobe PostScript vs. PostScript Clones

What are the trade-offs?
Frank Lee, Desktop Pub. Sol.
John Warnock, Adobe
John Rizzo, Weitek

Big System Connections vs. Networked Solutions

What's available? What works? What more is needed?
Howard Woolf, DEC
Jeff Mason, IBM
Bill Krause, 3Com

Output Alternatives (Including Color)

Beyond 300 dpi printers: high resolution, color and film.
David Dinin, Linotype
Bill Givens, ECRM
TBA

Luncheon

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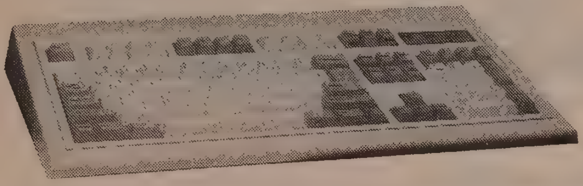
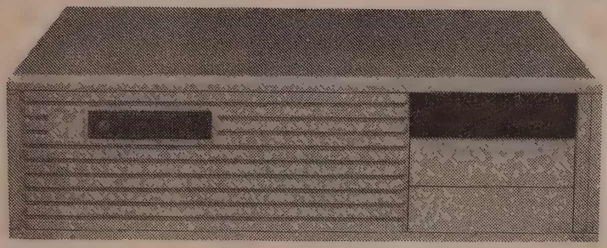


BTC offers exceptional value in their 84-Key Keyboards and their 101-Key Enhanced Keyboards for IBM PC/XT and AT compatibles.

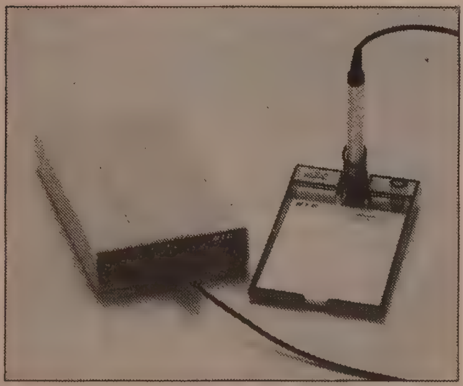
AT Cases



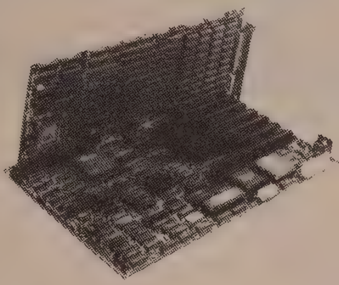
The BTC AT case has a scratch-resistant, baked enamel finish that is smooth, tight and laser straight.

Bar Code Reader

And BTC has introduced its new BTC-202 Bar Code Reader that includes Decoder & Wand. It scans a variety of codes and automatically adjusts to different bar code symbols. Best of all, the BTC-202 Bar Code Reader is IBM PC/XT/AT compatible and lets you work with your keyboard at the same time.



Motherboards



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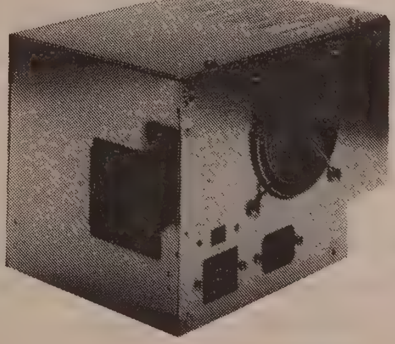

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SEYBOLD DESKTOP PUBLISHING EXPOSITION

SEMINAR SCHEDULE CONTINUED

Concurrent Sessions:

Newspapers

Peter Winters, Newspaper Advertising Bureau
Marion McNamee or Eve Furchgott, The Node
George Taber and Michael Stoner, Business for Central New Jersey

Magazines

Jim Felichi, Publish!
Jonathan Cohler, Digital Review
Brian Anderson, Australian Consolidated Press

In-plant

David Brooks, Capital Holdings
Bonny Briggs, Caterpillar
Nancy Cohen, CPT
Nancy Erskine, Pepsico

Education

Rick Sharpe, Simon Fraser University
Jack Davis, Platt College
Paul Sawyer, British Columbia Institute of Technology
Michael Stoner, Princeton University

Concurrent Sessions:

Books

Lance Hidy
Jesse Berst, New Rider's Publishing
Mona Zeftel, Addison-Wesley

Service Bureaus

Robin McAllister, McAllister and Company
Steven Wheeler, Graphics Plus
John McWade, Page Lab
Charles Wyke-Smith, Printz

Commercial

Mary Sommerset, Consultant to Dynagraphics
Doug Brown, Technaprint
Barry Rickert, People's Publishing

FRIDAY, SEPTEMBER 16

Concurrent Sessions:

Publishing Without Paper

CD ROMs
Presentations
Interactive databases
Noemi Bolvary, Slidetek
John Chisholm
Bill Atkinson, Apple

Graphics

Drawing, image processing, output of images.
Jeremy Jaech, Aldus
David Spencer, drs
Bernard Peuto, Sun

Concurrent Sessions:

Who will be the integrator?

Sales, service and support.
Joanna Tamer, S.O.S
Mike Soloman, Aldus
David Wasser, Interleaf
Sherman Uchill, S. Howe Comp
Lynn Holding, Rank Xerox

Color

What can we expect from desktop systems?
M. Templeman, Aldus
Alan Darling, Quad Graphics
Mills Davis, Davis Inc.
John Chisholm

Luncheon

Closing Session:

What To Expect In The Coming Year

Reflecting on the topics and issues discussed during the previous sessions, a panel of six industry leaders offers its view on specific developments to expect over the next year or two. The traditional closing sessions have offered fascinating glimpses of the future strategies of IBM, Apple and other industry giants.

Concurrent Interest Group Discussions:

(Definite)

Linotronic/High Resolution Output

PageMaker
Michael Stoner, Princeton University

Ventura Publisher
Nancy Cohen, CPT
Bob Moody, Ventura Publishers Magazine

Interleaf

(Possible)

Quark

Adobe Illustrator
David Smith, Designer

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	XT-1085 (71MB)	599.
Microscience	HH-1090 (80MB)	799.
	HH-1060 (65MB RLL)	525.
Mitsubishi	MR-535 (50MB) RLL 75MB	475.
Rodime	RO-3055 (45MB)	599.
	45-Plus (45MB) External/Macintosh	995.
	60-Plus (60MB) External/Macintosh	1049.
	RX-1000 (100MB) Internal/Macintosh	999.
	RX-1400 (140MB) Internal/Macintosh	1149.
Storage Dimensions	AT-160 (160MB) External	1495.

Hard Cards

Western Digital	File Card 30 (30MB)	425.

Floppy Disk Drives

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	MF - 504B (1.6MB) 5.25"	99.
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	MF - 355 (2.0MB) 3.5"	99.

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Western Digital	WD-1003-RLL(F/W 3.1 Interleave)	149.
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SCSI Adaptors

Adaptec	AHA - 1540	275.
Future Domain	TMC 830 DNK (with drivers)	199.

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	5150 PK (150MB) Internal	799.
Tecmar	QT 125E (125MB) External	1499.
	PC Adaptor Card	149.
	Micro Channel Adaptor	199.

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Western Digital	EtherCard Plus	209.
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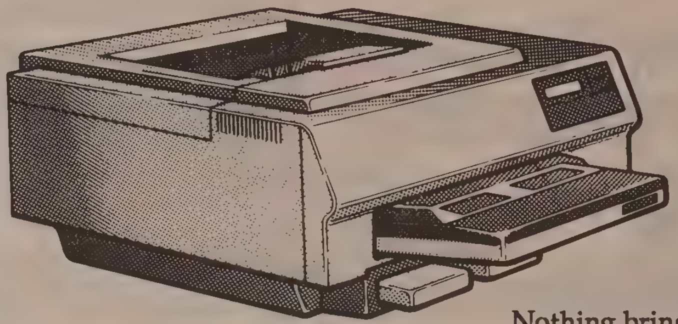

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HP JetScript Postscript upgrades available

HP ScanJet $689 after $300 HP rebate

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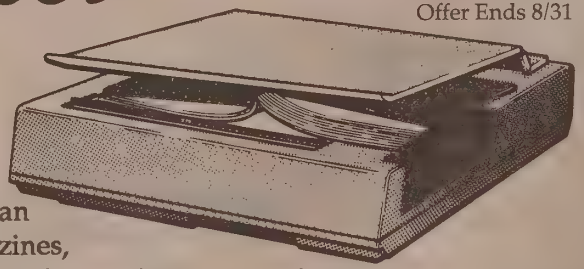

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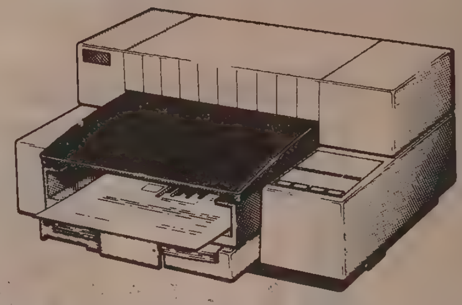

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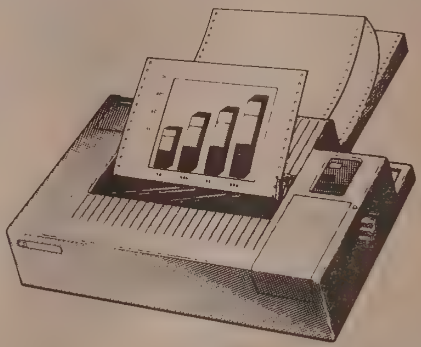

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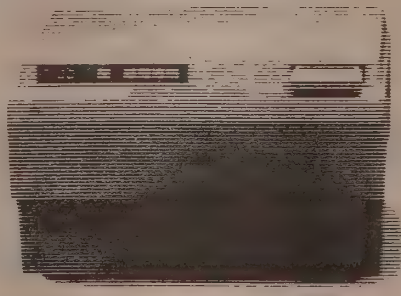

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MAC @ WORK

IN THIS ISSUE

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The new version of the popular file manager offers ease of use combined with sophisticated features.

76 Insight *By Robert Beauchamp*
Offering a modular approach to accounting, this package not only keeps track of your cash flow but also offers helpful advice on the practical implications of the results.

82 FullWrite Professional: Love, Hate And Memory *By Mary Eisenhart*
Second of two parts, in which Ashton-Tate's word processor displays many great features and an even greater appetite for memory.

86 BMUG *By David Morgenstern*
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MacLink Plus, for quick and easy exchange of formatted files between Macintosh and PC.

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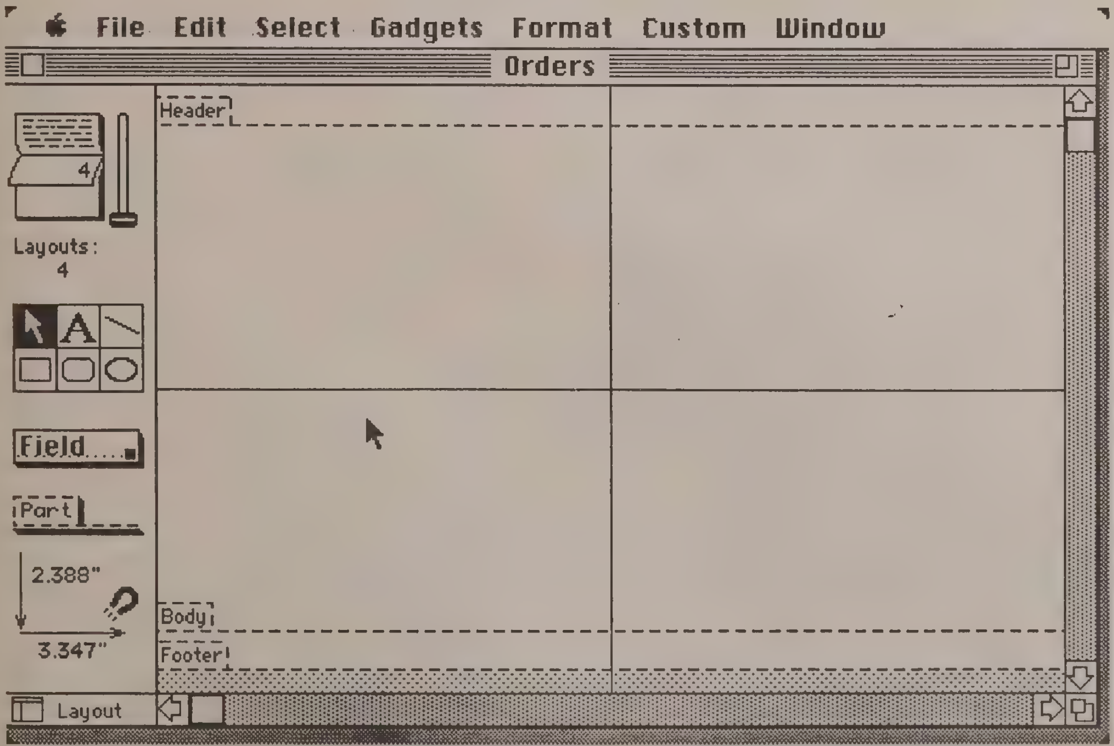
FileMaker 4

A Powerful, Easy To Use Database With Graphic Layout Capabilities

By Tony Rocco



Laying things out in FileMaker is similar to using a DTP program. A T-square feature helps align text and graphics.

Mention the word "database," and I think of a certain nameless clunker of a program around the office, the limitations of which have become a byword. I could only use one font in creating reports, for example. Changing the template to determine what fields to print was a mysterious process that usually created unexpected results. Some unidentified bug left an office mate with 25 blank pages before text would materialize in any large text-only file he printed to disk.

Compared to this, *FileMaker 4* is a paragon of clarity. The program's graphical interface, the consistent way in which it is employed, along with a thorough, well-written manual, make *FileMaker 4* an interesting and engaging program to learn and to use. The novice database user will be particularly appreciative of it.

FileMaker 4, an upgrade of *FileMaker Plus* from Nashoba Systems (just acquired by Claris Corporation), is a file management program that integrates graphics and basic layout capabilities. *FileMaker* can create slick-looking reports with footers and headers, a company logo and illustrations, unusual layouts, summaries and grand summaries. It is also makes churning out mailing labels a relatively simple and effortless affair.

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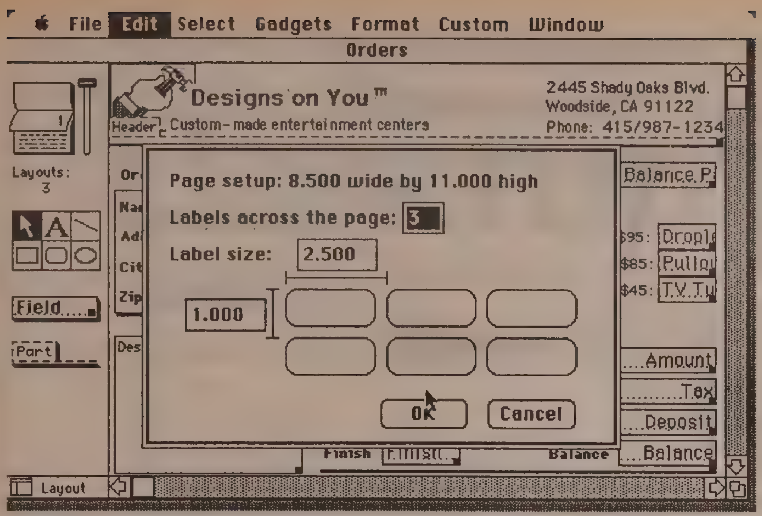

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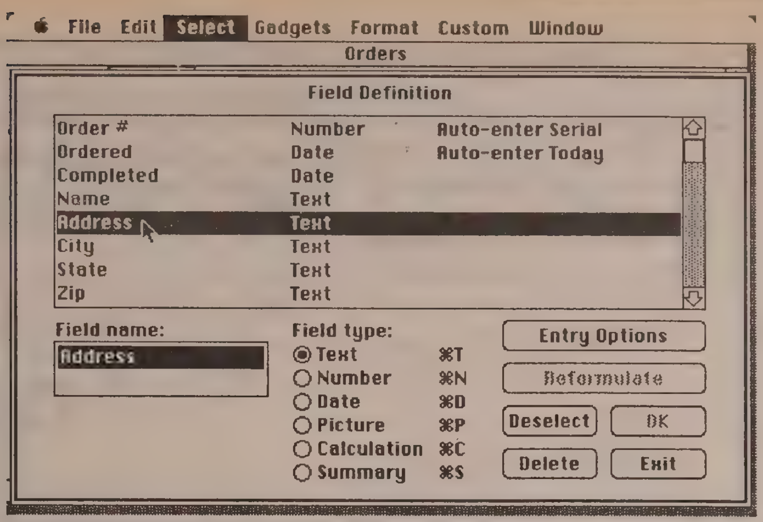
Page setup: 8.500 wide by 11.000 high
Labels across the page: 3
Label size: 2.500
1.000

From the software end, printing labels is a cinch with this simple box to define dimensions.



Order #	Number	Auto-enter Serial
Ordered	Date	Auto-enter Today
Completed	Date	
Name	Text	
Address	Text	
City	Text	
State	Text	
Zip	Text	

Field name: Address

Field type:
- ● Text ⌘T
- ○ Number ⌘N
- ○ Date ⌘D
- ○ Picture ⌘P
- ○ Calculation ⌘C
- ○ Summary ⌘S

Defining fields is a simple matter of using the Define command, naming a record and clicking on the desired Field type.

Using *FileMaker 4* mostly involves two basic modes, Browse and Layout. You use the Browse mode mainly to enter data into fields. In the Layout mode, you create the graphic design of the report you want to print out..

The Browse Mode: Data Entry

The first in step in using *FileMaker* is to set up your fields. Accomplishing this is a simple process of using a dialog box to name and define fields. You can select from Text, Number, Picture, Date, Calculation and Summary fields.

Choosing the Calculation field will give you a bewildering variety of options to calculate values from existing values within a record. *FileMaker* provides the user with a vast array of arithmetic, comparison, text and logical operators, and mathematical, financial and repeating field functions. They are all easily accessed from a dialog box that displays choices in scrolling fields.

Summary fields are also created with a dialog box, but you select one of seven preset summary formulas rather than constructing a free-form calculation. Summary fields are different from calculation fields in that they apply to a given field common to a group of records rather than a group of fields within a record. Summary fields must be placed in special summary parts that are created in the Layout mode. They are not kept as part of a single record.

FileMaker offers the user two important options when defining fields. The first is a Lookup feature that requires the existence of another file with related information to be used in the current file. For example, if you are preparing an invoice with a list of car parts, their prices, serial numbers, etc., you can link your invoice file to another file containing information on all your parts. When you enter, say, the name of the part, or its number, *FileMaker* automatically looks up the rest of the information on that part and puts it in the correct fields.

Another highly useful feature is *FileMaker*'s Entry Options. Two of the best ones are automatically inputting today's date, and automatically entering serial numbers. You can also use Entry Options to make sure the values in a given field have certain characteristics: that they are within a certain range or are unique or have a numeric value only. You can create a list of specific values for a given field so that when you enter data in that field, a scroll box appears with those preordained selections. You then double-click on the one you want to enter.

Any database will find and sort according to a variety of criteria, but *FileMaker* does both especially elegantly. When you choose Sort from the Select menu, you are presented with a Font/DA mover type dialog box displaying all the fields in your records on the left. You select the fields you want to sort by and place them in the box on the other side, in the order you want them sorted, with the click of a Move button. Then you press the Sort button and get a very fast sort. *FileMaker* sorted 210 records by two criteria in under five seconds on a Mac Plus.

As easy and quick as the sort function is, the Find capabilities of *FileMaker* are more impressive. You choose Find from the Select menu and get a window displaying all your fields. On the left of the screen are <, >, ≤, ≥, =, ..., ! and // buttons. You have the option of selecting or omitting records by the criteria these symbols represent.

The ..., ! and // buttons may require some explanation here. The first symbol finds values, numerical or alphabetical, between and including values that you place on either side of it. The exclamation point tells *FileMaker* to search for any field contents that are duplicates. The // looks up records that have today's date in them. You can tell *FileMaker* to find records that contain values in certain fields and omit records with specified values in other fields, simultaneously. It is also easy to ask *FileMaker* to find records by one criterion or another. By selecting New Request from the Edit menu and entering new criteria, you can find records that have anyone who lives in Los Angeles *or* San Francisco *or* has a last name that begins with R. And Finding records with FileMaker is as quick as sorting.

Using Find and Sort results in easily and quickly getting to the desired records in your file and putting them into the order you want them for a report. When you're to the point that you've defined your fields, entered your data and found and sorted for the records you need, it is time to move from the Browse mode into the Layout mode. In many ways, its layout and graphics handling capabilities are *FileMaker 4*'s most exciting features. They are not without their shortcomings, however.

Layout Mode: Report Generation

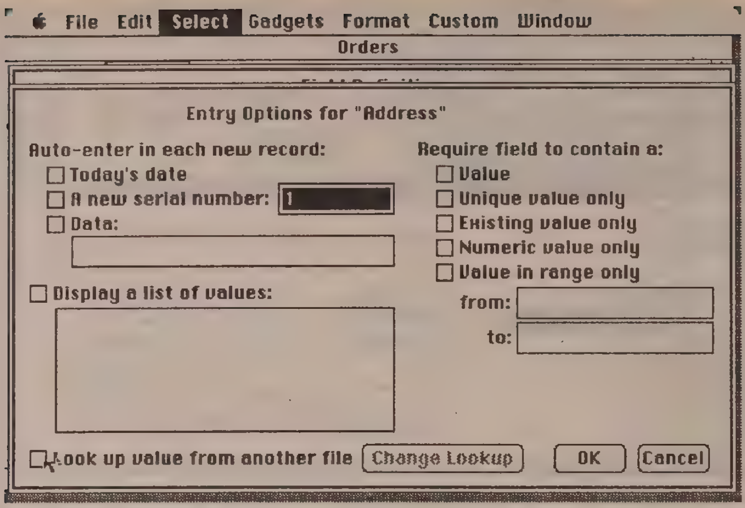
If you are printing out a report that has to look just so, your first step is to tell *FileMaker* what kind of printer you intend to use and what size paper you want it to print out on. This step is extremely important. You go under the Apple and select the appropriate printer icon in Chooser. Then from the File menu you select Paper Sizes and decide what paper size you are going to print out on. You have several standard sizes to select from plus the option of defining a custom paper size of your own. Completing this process leads to giving Page Setup information for the printer. You give it the same info that you put in Paper Sizes.

Next, you go under the Select menu and choose Layout. In this mode you see all your fields, while on the left you have a *PageMaker*-type tool box, a book icon to keep track of layouts by turning pages, and a Field and a Part icon. If you scroll the page to the right, you encounter a vertical line indicating the right side of the page. (The line is actually half an inch from the very edge of the paper because most printers will not print any closer to the edge.) Scrolling down the page will bring you to a dotted horizontal line. This indicates the bottom limit of the page, again a half inch from the actual edge.

Laying things out involves moving and deleting fields, changing their sizes, changing typefaces, styles and point sizes, and placing fields and images in appropriate Parts. *FileMaker* works very much like a simplified page layout program, and those with DTP experience will feel comfortable with it. You can include simple graphics or paste in more elaborate images from the Scrapbook. Any graphic with a file format the Scrapbook can handle can be put in *FileMaker 4*. If the image is copied into a field, it will be specific to that field. If it is copied into the Body of the document, it will be common to each record. If you place it in the header or footer, it will appear at the top or bottom of the first page. Finally, if an image is put in a grand header or grand footer, it will be shown at the top or bottom of each page in the report.

It would be nice to have a ruler, vertical and horizontal, to help lay out fields and graphics. Instead, *FileMaker* has what is called a T-Square to provide measurements. When you move either the horizontal or vertical line of the T-Square, the distance from the top or right margin, displayed in the lower left corner of the screen in inches, changes. This arrangement works passably well and, along with the Page Preview feature, is adequate for laying things out. Things could be a little easier, however, with a ruler giving measurements in inches or picas.

All in all, laying out fields and graphics is an easy and straightforward task in *FileMaker*. The T-Square has snap-to capabilities that assist in aligning objects. The Layout window itself has an invisible magnetic grid of 12 divisions per inch to help ensure that objects line up with each other. Precise placement of fields and graphics is quite



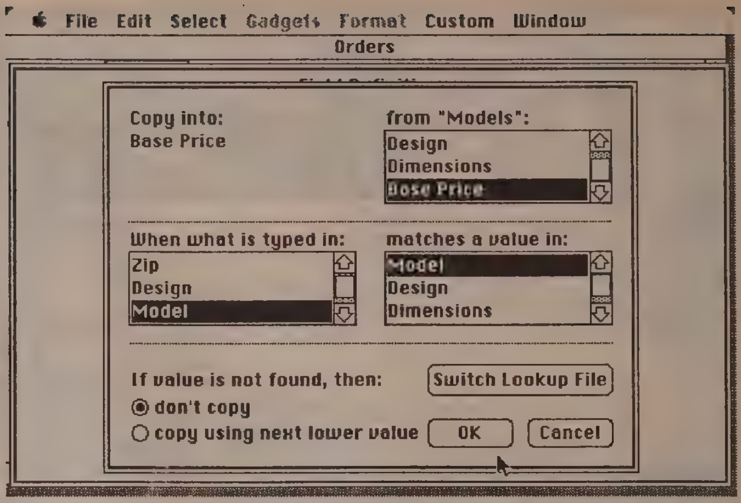
Entry Options for "Address"

Auto-enter in each new record:
☐ Today's date
☐ A new serial number: 1
☐ Data:
☐ Display a list of values:

Require field to contain a:
☐ Value
☐ Unique value only
☐ Existing value only
☐ Numeric value only
☐ Value in range only
from:
to:

☐ Look up value from another file

Entry Options offers time-saving and error preventative functions such as auto-enter serial numbers and restricted fields.



Copy into:
Base Price

from "Models":
Design
Dimensions
Base Price

When what is typed in:
Zip
Design
Model

matches a value in:
Model
Design
Dimensions

If value is not found, then:
● don't copy
○ copy using next lower value

A convenient Lookup feature links two files and saves time-consuming data entry.

easy with this grid. If the grid doesn't suit you, however, you can turn it off.

One of *FileMaker*'s strong points is printing mailing labels. It's easy. First you go through the procedure of selecting the printer, page sizes and page setup. Label layout is available with the New Layout command. When you select Label layout, you get a dialog box that asks you to specify the number of labels across the page and the size of the labels. After you enter the correct values and click OK, a Font/DA mover type dialog box asks you to select the fields you would like to print and their order. You move them from the scrolling field on the left to the one on the right and click OK. If you select more fields than a label can hold, *FileMaker* alerts you. After that, it's just a matter of putting your labels in the printer and choosing Command-P. The hard part involves getting the labels started at the right point vertically in the printer. But once you start things out properly, *FileMaker 4* produces page after page of evenly spaced names and addresses.

FileMaker 4 contains many useful features like the ability to create macros, called Scripts, to automate sorting, finding and printing functions; and the ability to safeguard a file with a password. *FileMaker* can also be used over a TOPS or AppleShare network.

Autosave is a more dubious blessing. It eliminates the Save As command entirely. Make A Copy, the only alternative to Save As, requires that you rename the copy when the file you are working on should be the one renamed, as it is the subsequent version. The only thing to do is make a copy, name it, then close the current file and open the copy as the saved-as file. This awkward procedure is a particular pain when working with templates, a common occurrence with any database.

All in all, though, *FileMaker 4* deserves widespread popularity with businesses that require a flexible non-relational database that will not just store data away somewhere, but produce useful, visually appealing reports and documents. Its ease of use and exciting graphical interface more than outweigh its few flaws. (*FileMaker 4*, Nashoba Systems, Inc., 1157 Triton Dr., Suite A, Foster City, CA 94404. (415) 578-1974.) ☐

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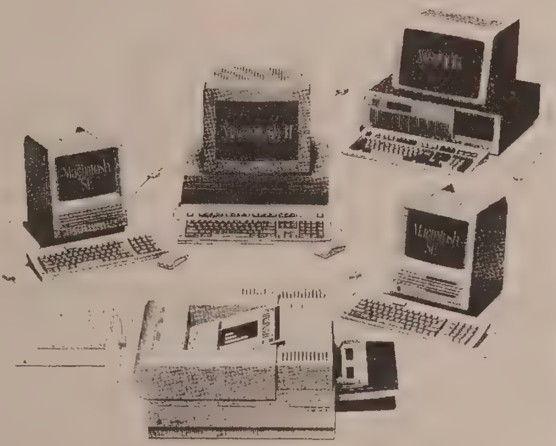

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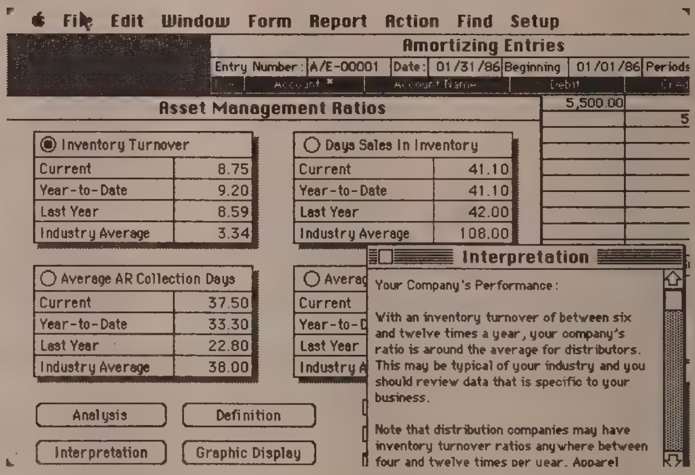
Gaining Insight

Layered's Accounting Package For The Mac Offers An Inside View

By Robert Beauchamp



Amortizing Entries

Entry Number: A/E-00001 Date: 01/31/86 Beginning 01/01/86 Periods

5,500.00

Asset Management Ratios

● Inventory Turnover	
Current	8.75
Year-to-Date	9.20
Last Year	8.59
Industry Average	3.34

○ Days Sales In Inventory	
Current	41.10
Year-to-Date	41.10
Last Year	42.00
Industry Average	108.00

○ Average AR Collection Days	
Current	37.50
Year-to-Date	33.30
Last Year	22.80
Industry Average	38.00

Interpretation

Your Company's Performance:

With an inventory turnover of between six and twelve times a year, your company's ratio is around the average for distributors. This may be typical of your industry and you should review data that is specific to your business.

Note that distribution companies may have inventory turnover ratios anywhere between four and twelve times per year. Apparel

The Expert Reports mode helps you find what your figures mean in terms of other companies' performance.

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Okay. You're an MBA. You know that amortization is paying a large bill over the span of a number of accounting periods. Could you, however, access your current debt-to-equity ratio? Right now, without leaving your desk? How about your operating margin of profit? Inventory turnover?

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How would you like to know how to keep on the good side of your banker? Or how to see a cash flow problem on the horizon? Or when to put your profits into a mutual fund? All using the specific data from *your* company's accounts?

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Layered isn't just a corporate name. If *Insight* is any evidence, it is also a philosophy. *Insight* consists of layers which build on one another, making your job of accounting easier and adding to your understanding of what all those numbers mean.

Account Information, Ledgers And Journals

The first major layer involves keeping an accurate, complete record of all your accounts and transactions. This, of course, is what accounting is all about. Unless you're running a shady business. By the way, *Insight* does not offer legal advice.

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You can organize your accounts by company, division, profit center and department. Each branch on your organizational tree can have its own account records, each with an account number that signifies its division and profit center.

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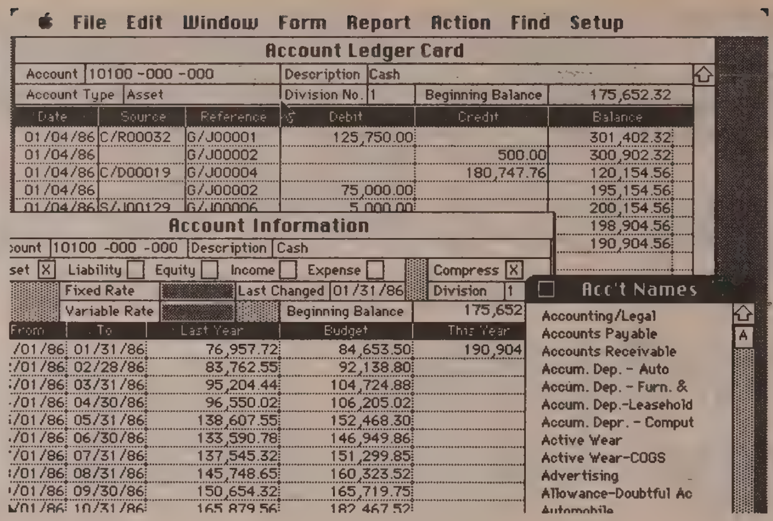

Account Ledger Card

Account 10100 -000 -000 | Description Cash
Account Type Asset | Division No. 1 | Beginning Balance 175,652.32

Date	Source	Reference	Debit	Credit	Balance
01/04/86	C/R00032	G/J00001	125,750.00		301,402.32
01/04/86		G/J00002		500.00	300,902.32
01/04/86	C/D00019	G/J00004		180,747.76	120,154.56
01/04/86		G/J00002	75,000.00		195,154.56
01/04/86	S/J00129	G/J00006	5,000.00		200,154.56
					198,904.56
					190,904.56

Account Information

count 10100 -000 -000 | Description Cash
set ☒ Liability ☐ Equity ☐ Income ☐ Expense ☐ | Compress ☒
Fixed Rate | Last Changed 01/31/86 | Division 1
Variable Rate | Beginning Balance 175,652

From	To	Last Year	Budget	This Year
/01/86	01/31/86	76,957.72	84,653.50	190,904
/01/86	02/28/86	83,762.55	92,138.80	
/01/86	03/31/86	95,204.44	104,724.88	
/01/86	04/30/86	96,550.02	106,205.02	
/01/86	05/31/86	138,607.55	152,468.30	
/01/86	06/30/86	133,590.78	146,949.86	
/01/86	07/31/86	137,545.32	151,299.85	
/01/86	08/31/86	145,748.65	160,323.52	
/01/86	09/30/86	150,654.32	165,719.75	
/01/86	10/31/86	165,879.56	182,467.52	

Accounting/Legal
Accounts Payable
Accounts Receivable
Accum. Dep. - Auto
Accum. Dep. - Furn. &
Accum. Dep.-Leasehold
Accum. Depr. - Comput
Active Wear
Active Wear-COGS
Advertising
Allowance-Doubtful Ac
Automobile

Insight offers a variety of options for viewing and analyzing your accounts.

type and division number as well.

Over time, you're going to accumulate a very large stack of cards. *Insight* makes it easy to access any particular card with the Acc't Name/Acc't Numbers help list. You simply access the help list from the Find menu and scroll through the list. To make it even easier, you can press the first letter of the account name, and the Acc't Names help list immediately scrolls itself to that area of the list. You then click on the account you wish to see. *Insight*, therefore, gives you immediate access to any account your company has in seconds.

Once you've built your chart of accounts, *Insight* offers four journals in which to make transaction entries. Depending on the specific transaction, you can use the general journal, the auto-reversing entries journal, the recurring entries journal and, yes, the amortization entries journal.

Insight will allow you to calculate budgets for any of your accounts. You select Calculate Budgets from the Action menu and select the period balance you want to use. You can use either this year's period balance, last year's or the current budget. Then you can increase or decrease the budget by the percentage you put in the percentage box. The budget you've calculated will show up on the account information card.

Insight will also let you print any of your account information cards, account ledger cards or journals. (This is not to be confused with the report function, which is a much more powerful feature.) Printing your account cards provides a simple way to see account information and provide a permanent paper record before posting.

At the end of the accounting period, you post your entries to clear the journal for the next accounting period. Your accounting periods are either months, quarters, years or your company's own custom period. You can have up to thirteen accounting periods, one for each month and the thirteenth as a final year-end adjustment period.

Posting involves pulling down the Post command from the Action menu, then printing your general journal. *Insight* will not post a journal until all debits and credits for all accounts are balanced. If there is an imbalance *Insight* will inform you of its location.

Once the general journal is posted, all the entries on it become permanent and are stored on account ledger cards. The transactions are then usable for reports such as trial balances and financial statements.

Reports

The next level of *Insight* gives you the ability to use your account journals to generate reports. You can generate three types of reports with *Insight*. The first two, trial balance and financial statements, are similar to reports generated by a database program. In fact, you are using your accounting records as a database to generate these reports.

Trial balance reports are simple reports listing whatever accounts you wish. A summary trial balance contains opening balance, debit, credit and closing balance information. The detail trial balance provides transaction information as well. The working trial balance report shows the ending balance for each account and is intended to be used as a worksheet.

The basic types of financial statement reports are income statement, balance sheet and source or use of funds statements. You are by no means limited to these types of reports, however, as you can generate your own custom reports.

To generate a financial statement you use the Report Format screen. The screen has a place for the report name and any formal title you desire. Designing your report is as simple as clicking the options you wish to use.

Each report has seven columns. The first column is always the account, total or heading description. The other six columns, however, can be put to one of five purposes. A column can be a general ledger amount, a total, a percentage, a variance or a ratio.

For example, if you wanted the second column to be a general ledger amount, you would click the button for column two then click the button for general ledger amount.

Or say you wanted to make a column a percentage of two other columns to determine, for example, the percentage increase in sales from last year to this year. You would click the column you wanted the percentage in and then click the numbers of the two columns from which you wish to derive your percentage. It doesn't get any easier than this. Unless, of course, you use one of the previously generated report formats included with *Insight.*

Insight allows you to preview your report format on screen before printing it in order to see how it will look on paper. It shows you the title of your report, the title of your columns and the information in each column. All that is left in creating your report is choosing the accounts you wish to include. Again, you choose an easy-to-use window and enter your accounts.

Expert Reports

According to the public television show *Starting A Business,* most small businesses fail due to poor accounting. A business can have a great product, location and marketing, but still stumble when it comes to finances. A company's very successes, ironically, can spell disaster as growth outpaces control, and the entrepreneur is overwhelmed by paperwork.

Insight goes a long way in helping you gain that control. By keeping track of all your transactions, it lets you know exactly where your money is going. Layered does not by any means offer up *Insight* as a replacement for an accountant. When you do go to your accountant, however, you'll have the information he or she needs to serve your interests better. You also gain an advantage when you go to your banker if you can show your organized records and demonstrate that you have control of your finances and your company.

The final layer of *Insight* is its expert reports capabilities. The expert reports don't give you specific advice. They do, however, tell you who's interested in what and who you *should* talk to if problems occur. The major advantage of the expert reports is that it lets you feel the pulse of your company and see problems coming before they happen.

Insight gives you twelve financial ratios which are calculated using the balances in your general ledger. The financial ratios center around the areas of liquidity, profitability and asset management. Ratios are available for the current period, last year and year-to-date. The ratios derived from your ledger are compared with the industry average to give you an idea how your company compares to others.

Insight not only tells you what the ratios are, but also what they mean. In the Profitability Ratio window, for example, you can see your return on equity, return on assets, operating margin of profit and gross margin ratios. Also in the window are four buttons labeled Analysis, Definition, Interpretation and Graphic Display. By clicking any of these buttons you can open up the world of accounting like a child opening up a birthday present.

The Definition window defines the the ratio you are currently interested in. If you want to know what return on equity is all about, this is the place to find out. It also tells you who are most concerned about this ratio, whether it be lenders, managers or owners. A wealth of information is stored here. One can easily begin to grasp the significance of these ratios simply by reading the definition windows.

The Analysis window shows you what factors went into determining the ratio. For example, *Insight* shows you that the current ratio for liquidity is figured by dividing current assets by current liabilities.

And now, the feature you've been waiting for, the highlight of the *Insight* package: interpretation. The

The Interpretation window tells you your company's progress by analyzing your ratios. If your ratio is close to the industry standard, Insight lets you know. If you're below the standard, then Insight suggests ways in which you can improve on this area.

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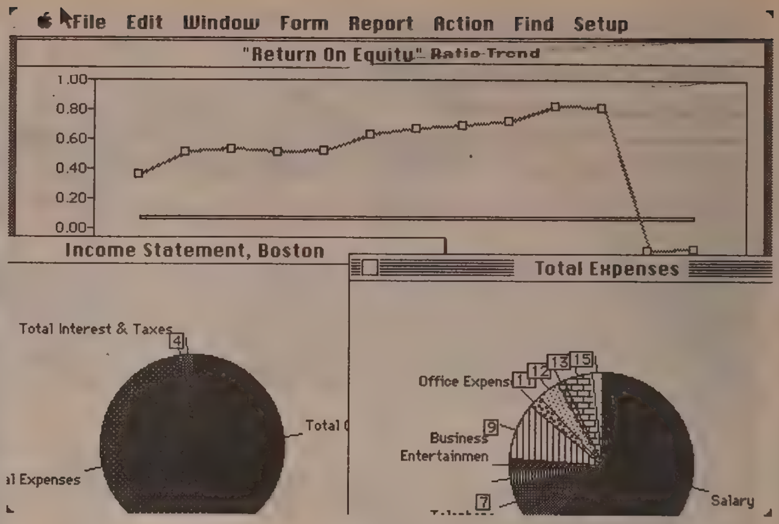

Insight gives you the ability to display account information in a variety of formats

Interpretation window tells you your company's progress by analyzing your ratios. If your ratio is close to the industry standard, *Insight* lets you know. If you're below the standard, then *Insight* suggests ways in which you can improve on this area.

It's a good idea not to wait and see what *Insight* has to say when something goes wrong. The program provides you with examples, demo companies that you can use to see what *Insight* has to say in different situations, both good and bad. As with the definitions, you can get a good grasp of basic accounting and business just by reading the interpretation window.

Presented in this form, in an easy-to-read and concise manner, the ins and outs of accounting show their fascinating side. It is actually fun to jump through the windows, scroll through the interpretations and really learn something about business. It is this aspect more than any other that makes *Insight* the perfect Macintosh application.

Graphics Capabilities

Insight is also able to accommodate those who prefer pictures to words. By clicking the graphics button on the ratio window, you will get a graph that shows the rise and fall of your ratios by period. On the same graph it also shows last year's progress for comparison.

Another graphics capability is *Insight*'s ability to use your data to make pie graphs. You determine which aspects of your financial statements you want represented in your pie, and *Insight* generates it for you. If one slice of your pie is a total of several figures, *Insight* can automatically generate another pie representing those elements.

The Notes DA

Insight provides one more feature that will warm the hearts of Macintosh users: the Notes desk accessory. This DA, like any other, is accessed from the Apple menu. It covers in detail, often better than the manual, every aspect of *Insight*.

At any point when you're working with *Insight* and you get stuck, simply call up the Notes DA. Since you don't have to quit *Insight* to access DAs, you can have your question answered in a few seconds and get back to work. This is the perfect solution for those who don't read manuals.

Conclusion

You've probably been exposed to the kind of powerful program that lets you do *anything you want.* These applications handle tremendous amounts of data and stay out of your way, letting those with the knowledge and proficiency do incredible things.

Insight, on the other hand, is the kind of program that does *everything for you.* Without having any computer skills beyond knowing how to work a mouse, you can access information and put it together in a meaningful way. Or better yet, have it put together *for you* in a meaningful way.

It is so easy to implement that those unfamiliar or inexperienced with accounting can gain the kind of control over their business that they only dreamed of before. For those who know accounting inside and out, but have little computer experience, it provides the ultimate ease of use. It utilizes every aspect of the Macintosh interface so well as to convince you that this is the program that the Macintosh was created to run. (Layered Incorporated, The Schrafft Center, 529 Main Street, Boston, MA 02129. (617) 242-7700. ☐

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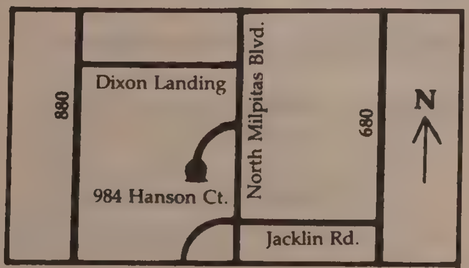

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FullWrite Professional:

A Continuing Tale Of Love, Hate And Memory

By Mary Eisenhart

It's a little hard to know what to say about *FullWrite Professional.*

If it weren't for one or two little things, *FullWrite* would be the only word processor on my hard disk. It continues to transfix me as it reveals yet another feature I've waited years for. Look at your basic *MicroTimes* page, and consider how useful it is to be able to change all the occurrences of PageMaker to *PageMaker* from the Find menu...For a feature like that I'm willing to live with a little sluggishness on my Plus.

And that endearing autosave rescuing me from the consequences of my own absent-mindedness — a godsend.

However, *MacWrite* and *Word* have not yet been consigned to the Trash can. The other day, having used *FullWrite* to good advantage on several short documents, I tried to open a newly-arrived 20-page *MacWrite* opus. Not enough memory to complete this operation, says the dialog box.

So today, I try to paste in a *SuperPaint* graphic, a scan of some line art. (A process which the *FullWrite* manual seems to assume everybody knows how to do, which may be a bit optimistic. *FullWrite* does offer a *MacDraw*-like graphics program, and gives a reasonably detailed description of its use. However, it seems rather more likely, especially in the corporate world, that most users are going to import graphics rather than draw their own, and it would be nice to see this issue addressed in some detail in the manual's next revision.)

Not enough memory for that either, says the Plus.

With curses and imprecations and much cable-swapping, I try the two-meg machine. Under Multi- and vanilla Finder. Nope. I try booting from a floppy with a less bloated System. No change.

I can, however, report that the five-meg II handled the graphic paste and subsequent text wraparound gracefully. But now that I've created a 120K *FullWrite* file, the Plus won't open it.

There's More

Not only will *FullWrite* make you pathologically aware of every byte of RAM you don't have, it tends to take over those stray bits of disk space too. You ought to check your System file periodically, because you may find files with names like VM432875 proliferating. I threw out two megabytes' worth this morning.

Apparently, according to the wizards at BMUG, these files are cousins of the Word Temp files that Microsoft *Word* generates. (The documentation does not address the issue; there's an AutoBackup feature, but this isn't it.) They're supposed to go away, in the manner that Word Temp files eventually did. They don't always. Throw 'em out.

So Why Do I Love This Program?

For the same reason anybody likes a particular program, most likely. Because it does a lot of things I need to do very well, and because it's pretty easy to figure out how to do them, most of the time. Which is a lucky thing, because the manual suffers from the common problem of requiring you to ask the correct question before you get any useful information.

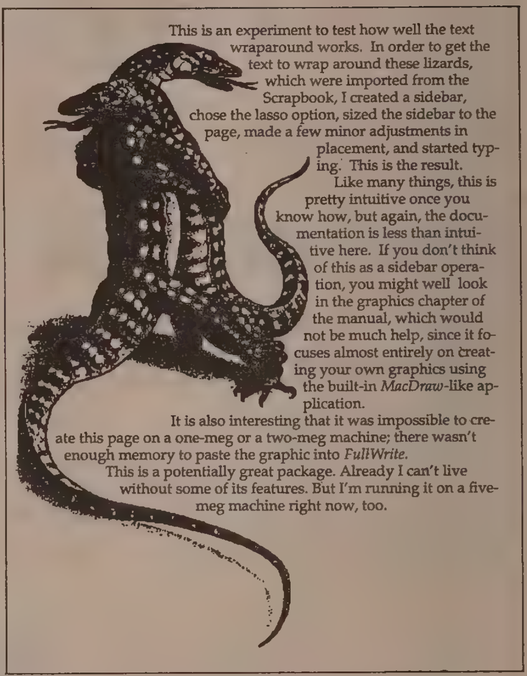
For instance, one of *FullWrite*'s most attractive features is its ability to wrap text around random-shaped objects. If you happen to be one of those foolhardy enough to look for instructions on how to accomplish this feat in the graphics chapter, you'll get a migraine and no info.

But if you look in the chapter on sidebars, you'll learn a lot. There's a certain amount of immersing yourself in the metaphor required here.

Sidebars

FullWrite uses the sidebar concept to serve a number of functions. Its most common use will probably be as a workaround for the fact that the program does not support unequally-sized columns. You can easily create a sidebar, size and place it on the page by a simple dragging procedure, and choose such niceties as gray-scale backgrounds and different styles of border. *FullWrite* does not support the Master Pages concept *PageMaker* users are familiar with — if you want unequal columns on every page of your document, you'll have to create the sidebar manually on each page.

You can place both text and graphics, and even another sidebar, within the sidebar. Best of all, sidebars can be defined as either rectangular or random-shaped by simply choosing a marquee or lasso option. And, if you want to wrap text around a graphic, it couldn't be easier; simply paste the graphic into a lasso-type sidebar, place the sidebar on a page, define the amount of whitespace and/or border you want around the sidebar, and the text on the page will automatically wrap around the graphic. (Especially in the case of scanned graphics, you may find that you want to edit your



This is an experiment to test how well the text wraparound works. In order to get the text to wrap around these lizards, which were imported from the Scrapbook, I created a sidebar, chose the lasso option, sized the sidebar to the page, made a few minor adjustments in placement, and started typing. This is the result.

Like many things, this is pretty intuitive once you know how, but again, the documentation is less than intuitive here. If you don't think of this as a sidebar operation, you might well look in the graphics chapter of the manual, which would not be much help, since it focuses almost entirely on creating your own graphics using the built-in *MacDraw*-like application.

It is also interesting that it was impossible to create this page on a one-meg or a two-meg machine; there wasn't enough memory to paste the graphic into *FullWrite.*

This is a potentially great package. Already I can't live without some of its features. But I'm running it on a five-meg machine right now, too.

FullWrite wraps text around irregular-shaped graphics with simplicity and elegance—if you have enough memory.

You can place both text and graphics, and even another sidebar, within the sidebar. Best of all, sidebars can be defined either rectangular or random-shaped by simply choosing a marquee or lasso option.

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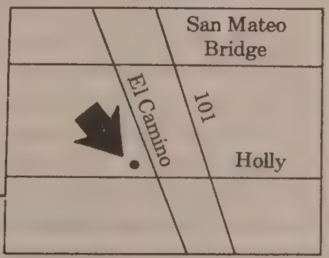

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art a bit in your paint program first. While *FullWrite*'s drawing program offers some useful tools including Flip and Rotate, it handles sizing by letting you change horizontal and vertical size without maintaining the drawing's proportions. Also, the text will wrap itself around the outermost stray black pixel and *FullWrite* doesn't give you an eraser.) If your Mac has enough memory to handle this operation (and in my experience a two-megabyte Mac doesn't), you'll be amazed by the simplicity and elegance of this function.

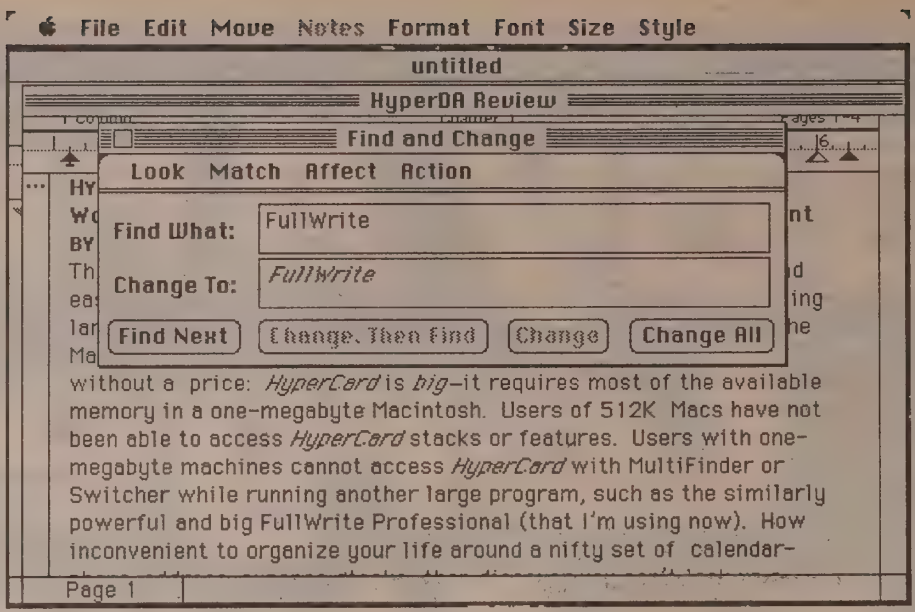
Notes And Outlines

Another particularly nice feature of *FullWrite* is that it lets you place various types of notes within your text. Legal and scholarly types will find any type of footnote support they might require. But most interesting is the Posted Note option, which lets you place additional information out of sight in a document (one caveat — if you save your *FullWrite* files in, say, *MacWrite* format, all your notes and other *FullWrite*-specific elements vanish). A note icon sits in the margin beside the text to which the note refers, and if the person reading your document wants more information, it's a simple matter of double-clicking the icon. I suspect that as more people get used to *HyperCard* and as groupware takes over the office, the Posted Note will become one of *FullWrite*'s most attractive features. The current version of the program, with its ability to track the work sessions of a document's creation, along with its note-posting capabilities, seems well thought out as the foundation for a multiuser/LAN version to fulfill the promise of *ForComment* on the PC.

FullWrite supports a wide variety of outlining styles and formats, and lets you create your entire document in outline form, then "flatten" it into conventional form. I found the outliner counter-intuitive and something of a hassle to use, but this is, I think, mostly a matter of individual taste and experience. The outline feature can also be used to generate tables of contents and the like, which book authors will find useful.

Undocumented Feature With System 6

In company with a number of other Mac applications, *FullWrite* has a known problem with Apple's System 6.0 in that it won't let you open a *FullWrite* document from the desktop. According to Ashton-Tate's tech support, this has to do with something called a "bundle bit" in the program which behaves oddly with System 6; the practical solution to this problem is to put the Thesaurus and Dictionary files in a subordinate folder in your *FullWrite* folder. I did, and it worked fine. The more venturesome may want to remove the bundle bit entirely, using *ResEdit* or *DiskTop*.

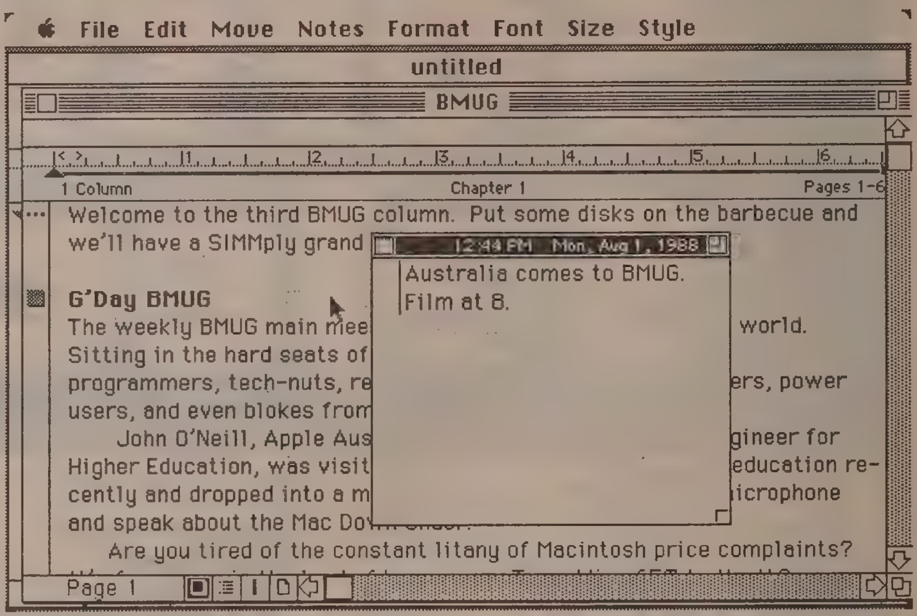


Find What: FullWrite

Change To: *FullWrite*

without a price: *HyperCard* is *big*–it requires most of the available memory in a one-megabyte Macintosh. Users of 512K Macs have not been able to access *HyperCard* stacks or features. Users with one-megabyte machines cannot access *HyperCard* with MultiFinder or Switcher while running another large program, such as the similarly powerful and big FullWrite Professional (that I'm using now). How inconvenient to organize your life around a nifty set of calendar-

One of FullWrite's most attractive features is that it allows you to make style changes from the Find menu for the whole document.



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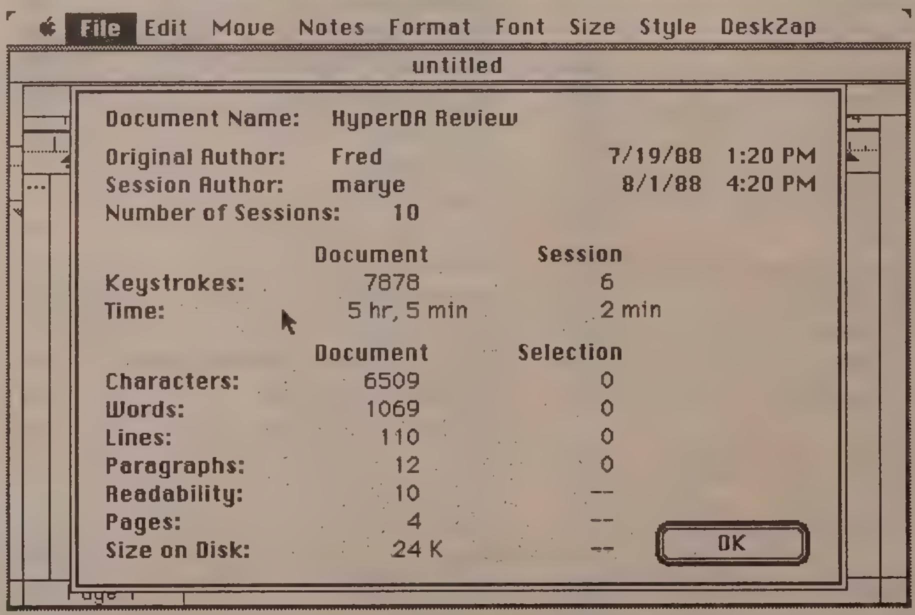
G'Day BMUG

The weekly BMUG main mee … world. Sitting in the hard seats of … programmers, tech-nuts, re … ers, power users, and even blokes from

John O'Neill, Apple Aus … gineer for Higher Education, was visit … education recently and dropped into a m … icrophone and speak about the Mac Do

Are you tired of the constant litany of Macintosh price complaints?

Posted notes stay hidden until the reader double-clicks their icons in the left margin.



Document Name: HyperDA Review

Original Author: Fred 7/19/88 1:20 PM

Session Author: marye 8/1/88 4:20 PM

Number of Sessions: 10

	Document	Session
Keystrokes:	7878	6
Time:	5 hr, 5 min	2 min

	Document	Selection
Characters:	6509	0
Words:	1069	0
Lines:	110	0
Paragraphs:	12	0
Readability:	10	--
Pages:	4	--
Size on Disk:	24 K	--

The Get Info option keeps track of the history and statistics of each document.

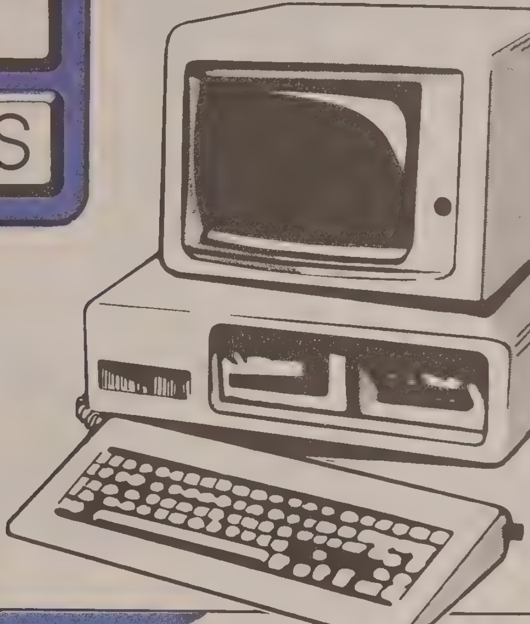
So, Should You Buy This Program?

In my opinion, *FullWrite* is a brilliantly conceived product which makes excellent use of the Macintosh concept, and I hope its interface and features mark the beginning of a new and better era in Mac software. However, the most hardcore *FullWrite* religionist isn't going to make much of a case for its speed or its economical use of RAM. So, unless you got your memory expansion already, make sure your machine can handle the type of work you want to do; if you've got a one- or two-meg Mac, I strongly recommend putting the software through its paces on a similarly-configured system at the dealer's before you buy. Pay particular attention to graphics handling.

In many ways *FullWrite* is an excellent choice for even the first-time user, in that it's easy to get started with and offers more sophisticated features as you need them. However, because of its enormous memory requirements and its occasional, often non-repeatable, bugs, I hesitate to recommend it to the absolute beginner. A pity, because if you've got the hardware it requires, *FullWrite* might really be the only "publishing" package you'll ever need.

The most hardcore FullWrite religionist isn't going to make much of a case for its speed or its economical use of RAM.

NORDIC COMPUTERS



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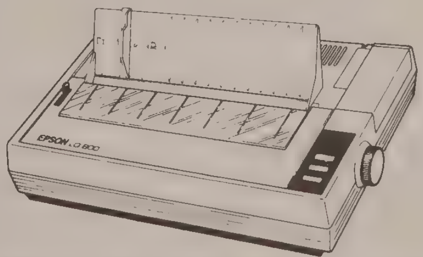

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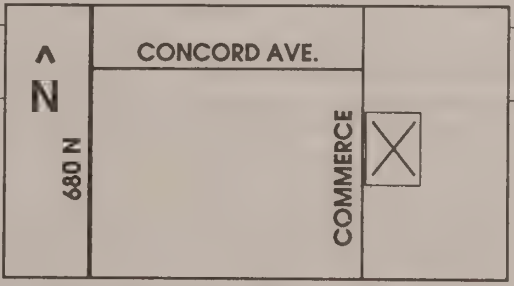

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BMUG

BY DAVID MORGENSTERN

Macs Down Under, The Joys of PRAM And More . . .

Welcome to the third BMUG column. Put some disks on the barbecue and we'll have a SIMMply grand time!

G'Day BMUG

The weekly BMUG main meeting is the crossroads of the Mac world. Sitting in the hard seats of the lecture hall are visiting Mac programmers, technuts, reporters, corporate spies, new users, power users and even blokes from Apple Australia!

John O'Neill, Apple Australia's one and only Systems Engineer for Higher Education, was visiting the Bay Area for some Apple education recently and dropped into a meeting. He was forced to don a microphone and speak about the Mac Down Under.

Are you tired of the constant litany of Macintosh price complaints? It's far worse in the land of kangaroos. Try adding 65% to the U.S. mainland price! Much of the extra costs are stiff import duties and the 20% sales tax in Australia. Planning on buying in New Zealand? Their prices are 100% higher—they buy from Apple Australia.

Some popular programs in the U.S. aren't doing so well there. The main problem seems to be bungling local distributors. *WriteNow* hasn't caught on in Australia. *4th Dimension* is selling poorly because of its $1000+ price tag—A.C.I. (the international parent of Acius) requires the $400 support package to be bundled with the database. A/UX was having trouble getting an export license because of Department of Defense concerns.

The first Pacific Regional Conference for Apple Higher Education will be held in Australia in February 1989. John says they are still looking for speakers and will provide airfare and lodging. He can be reached as AUSTSALESED on AppleLink or jlo@otc.oz on Usenet.

The Perils Of Disk Mailing

There was also some discussion about mailing floppy disks. We've received several reports of disks going bad after being sent through the mail; one person mentioned the mailing failure rate hitting 15%! Speculation centered around the possibility of the disks being zapped by a magnetic field during sorting.

A very knowledgeable-sounding voice supplied a more likely reason for the disk failures. Some envelopes are sent through a sorting machine with gigantic rubber rollers. The rollers squeeze the disks like a pasta machine presses dough. The 3.5" floppy is really a sandwich: a disk surrounded by layers of Mylar, paper and plastic. The pressure from the rollers can cause one or more of these layered sheets to become warped or imprinted. This can cause the disk to lock up or not read/write correctly.

Sony disks seem to have fewer mailing problems. The BMUG office reports no problems sending the disks in regular first class envelopes (of course, BMUG usually pads our disks with the many pages of *About BMUG* and order forms!). This looks like a question for another BMUG disk experiment. Results to follow...

The SIMMs Shortage

The great SIMM (Single In-Line Memory Module) drought of 1988 continues. An Apple representative was reported to have said that an order placed **six months ago** would be filled, "for sure by March, **1989.**" Rumor has it that all authorized Apple dealers are refusing new SIMM orders. The saying that "one meg SIMMs cost more than cocaine, and are probably more addictive" is not so funny any more. Several Bay Area computer-related companies were ripped off to the tune of almost a meg of bucks recently. Only the writers' strike is keeping *Silicon Valley Vice* from the fall lineup.

BMUG Bad Taste Award

Have you seen the ad for the Mac ViewFrame™? The product is an LCD projection display that you stick on an overhead projector. The ad is the current leader in the Mac-Ad Bad Taste award. The headline reads, "Explode Your Macintosh!" The color photo shows a meeting led by a grinning blond salesman with the Mac projecting a bitmap drawing of an atomic mushroom cloud. Armageddon under MultiFinder.

Help! The PRAM Is In My Baby.

An interesting problem came up recently on the BMUG Help Line about the Mac's Parameter memory, known as PRAM. Before you skip ahead to something "not so technical that I'll understand,"

Mouse Advice

MouseTip One: The Apple DeskTop Bus (ADB) mouse used by the Mac SE and Mac II is designed to be right- or left-handed and easily movable. Unfortunately, it has also proved to be fragile and prone to static damage. Be careful when plugging and unplugging the mouse not to bend one of the little pins in the plug.

MouseTip Two: Don't wrap the cord around the mouse. A local university Mac lab has had a number of bad ADB mice from frequent wrapping. The wires inside the cord can break with this practice.

MouseTip Three: Don't unplug the ADB mouse when the Mac is on. The mouse has a little microprocessor that gets reset during bootup. This setting may not be accurate if you later unplug and replug the mouse. On the Mac II this can short a fuse on the motherboard, which might require replacement of the logic board! $$$.

Copyright © 1988 by David Morgenstern. David Morgenstern is a Bay Area "MacNurturer" and BMUG member. David is DMORGENSTERN on GEnie and himself at (415) 641-7352.

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keep reading! Knowing a little bit about PRAM will save you from grinding your teeth and pulling out your hair. In fact, it is one of the basic causes of **many** problems encountered with the Macintosh.

PRAM is a very small amount of memory built into the Mac's clock chip. This memory holds the settings of the Control Panel, Alarm Clock and Chooser. It also holds other settings used by some programs and hardware. Your battery feeds the chip even when the power is off, so you don't have to enter all this information each time you use your Mac. So what's the problem?

The usual problem is that these settings can become corrupted. BMUG gets calls every day about Macs where the Chooser won't hold its setting, or the date is a decade off. Sometimes this is because the battery is dead or running low and cannot maintain the integrity of the settings.

For some reason the Mac designers didn't include a battery test in the settings (are you reading this, guys?). If you have a Mac Plus or 512K model, you might want to replace your battery yearly. Mac SE and Mac II owners have extra-long life (supposedly five years) batteries that are not user removable.

The PRAM can also be rebuilt—erased and completely redone. In Macs up to and including the Mac Plus, the battery must be removed for five or ten minutes—go wash the dishes or brush the cat. In later models, you can just hold down the Command, Option and Shift keys while opening the Control Panel under the apple ( ) menu. This rebuilding will require a check of all the settings, since they may default to a different setting from the one you're probably used to.

The Mac II had a notorious PRAM bug. It kept forgetting where its internal hard disk was and mixing-up the PRAM information. An INIT called PRAM Fix v.2 (on BMUG Paris 1 disk) fixes this, as does the new System 6.0 software. These are the run-of-the-mill PRAM problems, not a special exciting new PRAM problem. Be brave and stay the course!

Some PRAMs Are More Equal Than Others

Some Macs have more parameter RAM than others. The original Mac (the 128K beauty) and the Fat Mac (512K) had 32 byte PRAM. The Mac Plus, SE and Mac II share a monster 256 byte chip. Who's missing in this lineup? The 512e Mac that was sold to thousands of students when the Mac Plus was the top of the line. Some 512e Macs got the extra PRAM (called XPRAM—eXtra, get it?) and some didn't. Some plain-old 512K Fat Macs got some of the bigger chips too.

Many Fat Mac and 512e owners have upgraded their machines with non-Apple, so-called third-party memory upgrades. Most new Macintosh programs now require one or two megabytes of memor, and the third-party upgrades are a cheaper answer than the Apple alternatives. However, these upgrades do not include a new XPRAM chip. The Apple PRAM chips are called in computer trading language a *custom serial clock chip with memory.* That means that only Apple has the Mac chip.

The different PRAM didn't mean anything special to users until the release of System 6.0. This is the same system that we told you last month to think twice about using, and the system that Apple will have to "update" in the near future. System 6.0 changed the *Sound* CDEV (a control panel device that handles sounds) to allow Mac Plus and SE users to easily customize their beep-sounds. Mac II users have had this ability for a long time.

The user opens *Sound* in the Control Panel and selects a new beep from a list. The sounds (called *snd resources*) don't get in your system by the Mac opening its ears wider. You have to paste them into your System file by using a program like *ResEdit.* When you pick a new beep, the unique number of the new beep (almost everything the Mac uses has lots of hidden numbers) is put into the PRAM with the other settings. When the Mac has to beep, it looks for this number in the parameter RAM and then plays the matching snd resource in the system file.

Here's the rub. This process will only work on Macs with the eXtended PRAM. This is only the beginning for settings stored in the XPRAM closet. Map needs some room in there too. New programs will want a piece of PRAM pie. Electronic Mail programs will want a way to signal mail delivery and keep telling you until you read it. They're lining up at Apple to claim a reserved seat in the bleachers.

How do you know if you have little PRAM or big PRAM? If you have *MacTest* 7.0 or greater (you and I don't have this program—it's only for Apple repair persons), you might run the eXtended PRAM test, which is a subtest of the Clock Chip test. If the program **crashes**, you have the XPRAM! A better test is to boot up with System 6.0. If you can run Map and the new Sound, you have the extra PRAM.

And if you don't? Answers come in two flavors: hardware and software. Hardware solutions are few and far between right now. I was told that Apple doesn't sell the better clock chip (part # 0042) separately. Levco, a company specializing in Mac add-on boards, said "Sounds like a neat idea." Don't hold your breath. A semi-serious suggestion by a local technician was to "find a friend in the Fremont Mac assembly plant." Good luck.

Software solutions are a little better. A shareware program called 512KE XPRAM INIT, Version 1.0 (on BMUG Utility 9 disk), was written in June by Scott Armitage. It makes your 512KE think that it has the XPRAM by storing the information somewhere else instead. A small bit of data is appended to the System file and is read from and written to instead of the XPRAM. If you have a hard disk this may work, but on a floppy-based setup this will be impossible.

Everything Else

It's finally here—**the Summer/Fall 1988 BMUG Newsletter**. To get this issue you must be a member. We're almost out of two of our back issues, so don't delay. Become a member today and get your Newsletter before they're all gone.

Next month I'll describe the fantastic new BMUG products and publications you'll want to own. Be the first on the block!

BMUG has one of the most up-to-date, comprehensive software libraries around with 250+ double-sided disks filled with the latest versions of public domain or shareware programs and *HyperCard* stacks. New disks are unveiled almost every week at the Thursday general meeting.

Our BBS offers the latest versions of files in our software library as well as news, private mail, rumors, etc. The BMUG BBS is part of the worldwide EchoMac Network on FIDOnet; by calling a local FIDOnet BBS in your area, you would then be able to get in touch with us wherever you are, as well as send mail to users everywhere. With our multiline capability you will now be able to have access to BMUG almost 24 hours a day. It's easy to use, fun, and a great resource.

Upcoming Events

August 18: *EG Book* & *EG Word* (Japanese Page Layout).

August 25: *Expressionist* 2.0 (Equations) & new *Crystal Quest.* (Game). □

What is BMUG?

Good question. BMUG is an educational non-profit corporation promoting the exchange of information. Like any growing organization, it is many different things to its 4000+ international membership.

BMUG, Inc. is a computer user group located in Berkeley, California. The group specializes in computers using a graphic interface. For a while that meant the Macintosh™ but now includes other makes, models and operating systems. BMUG supports many Special Interest Groups (SIGs), a five-line BBS, help-line, software library, weekly meetings and much more. BMUG also puts out a semi-annual 300 page book that we call our "newsletter." Our motto continues to be: W*e're in the business of giving away information.*

Come and join in the dialogue every Thursday evening, 6:00 pm - 9:00 pm (or whenever we finish), in the Physical Sciences Lecture Hall on the U. C. campus.

The BMUG Help Line, (415) 849-HELP, provides technical assistance and telephonic hand-holding during business hours (9:00 am - 6:00 pm). If your question can't be answered on the spot, we try to get you in touch with someone that can help. Of course, not every problem can have a happy ending—but we try.

BMUG has many great Special Interest Groups (SIGs). They're a great way to meet people doing or trying to do the same things you are. They include the Alpha/Beta SIGs (for new users and not-so new users), Desktop Publishing, Computer-Aided Design, HyperCard, Music, Professional Users, Programmers, Telecommunications, A/UX, Database Developers and more.

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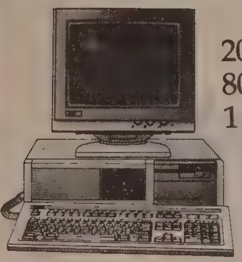

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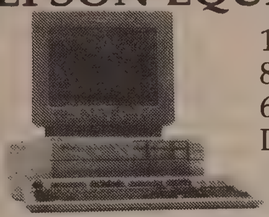

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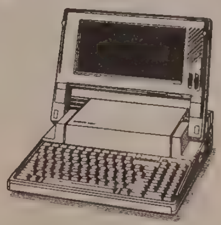

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BY BIRRELL WALSH

Little Programs For The Card Shark

We all love *HyperCard*. There are some things I cannot yet do in *HyperCard*, though, and this column is about the auxiliary programs to which I am addicted. There are three: the outliner *Think 'N' Time* from Mainstay Software, *Capture* from the same company and *Map* from Apple.

Think 'N' Time

Let us admit off the top that the name is unfortunate. I guess Mainstay wanted to make us think of TNT. Heaven preserve us from cute names.

Despite the name, we have in *Think 'N' Time* a very useful outliner.

I like this outliner because it is a desk accessory. I can open it over any application to make notes. It is particularly useful in *HyperCard* when I often want to travel from script to script copying parts of the script. With *Think 'N' Time,* I can open an outline and put the various script elements into an outline. Then I can reopen the same outline later to paste those elements into another card, or copy them into an article.

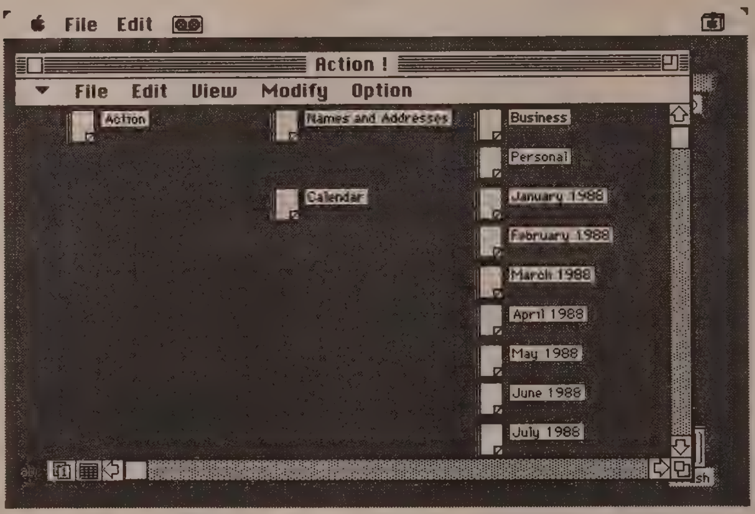
The DA is MultiFinder compatible. This is a blessing, as some of my other Desk Accessories are known to snarl MultiFinder beyond recovery. (An example is *Talking Moose*.) The *Think 'N' Time* outlines come up like clockwork in all the applications with which I have used them.

Think 'N' Time offers you a choice of formats. You can use a graphic format, in which the outliner headings are represented as documents at the end of lines. This format is useful for getting a bird's-eye view of the elements of your outline. You can also use an all-text format in which the subheads appear as a cascade of sub-menus. You can go back and forth between formats with a keystroke.

Think 'N' Time will serve as a rudimentary calculator. You can enter amounts in the text of the outline, as long as the amounts are flush-left and preceded by a +, - or $ sign. Then higher levels of the outline can be set to sum these sub-amounts. *Think 'n' Time* comes with a tutorial example which estimates a printshop job.

The outliner also has a full date system. It will automatically generate and manage a calendar for you, so you can use it for a to-do schedule. The system is not as flexible as one you can design in *HyperCard* (or buy—as with *Focal Point*), but it's not half bad.

Think 'n' Time costs $99.95.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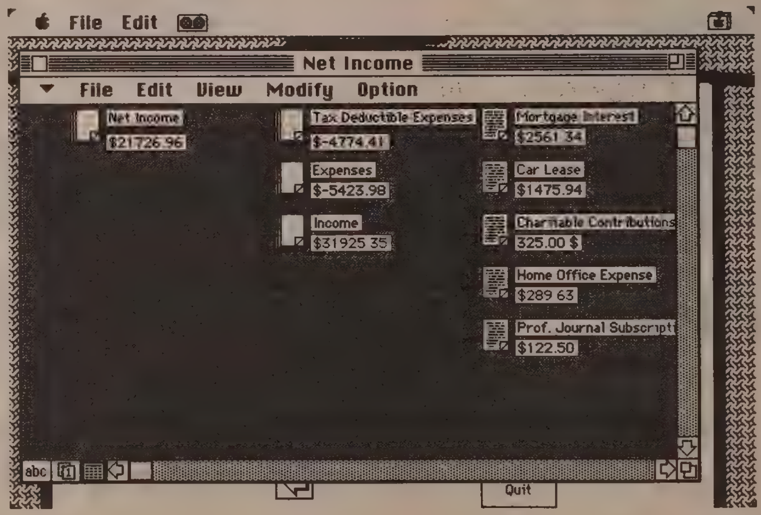
***Think 'n' Time* is an outlining DA that can manage a calendar for a to-do schedule.**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It can also do rudimentary calculations as long as the amounts are flush-left and preceded by a +, - or $ sign.

Capture

When you are working with a medium like *HyperCard*, you often want to make a screen-shot. The problem is that even "Select All" from the menu does not capture all the visible elements. It only gets those graphic elements in the screen layer where you are working. Other layers and buttons are not caught. *Capture* lets you take a picture of everything you see.

Capture is an INIT file that remains out of sight and mind until you type shift-command C. Then a cross-hair cursor appears on your screen. With it you can select a section of your screen to go to the clipboard. That screen can be graphic, textual or a mixture of the two. If you type the option key before making your selection, the screen-shot will be stored in a PICT file.

Simple, easy-to-use, reliable. If you use the Mac a lot, you need a screen-capturing utility, and *Capture* does the job. It works with MultiFinder under System 6, although it did not work with MultiFinder under system 5.

$59.95 for *Capture*. *Capture* and *Think 'n' Time*

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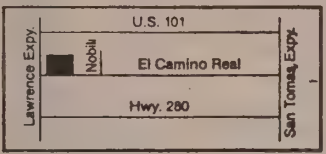

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Map

Speaking of System 6, never has a piece of System software received such abuse as the newest release from Apple. It had some delightful bugs and needed an update 21 days after release. Keep those cabbages and eggs coming, folks. But with System 6 came my new favorite Mac toy. If you haven't tried it, you have to see *Map*.

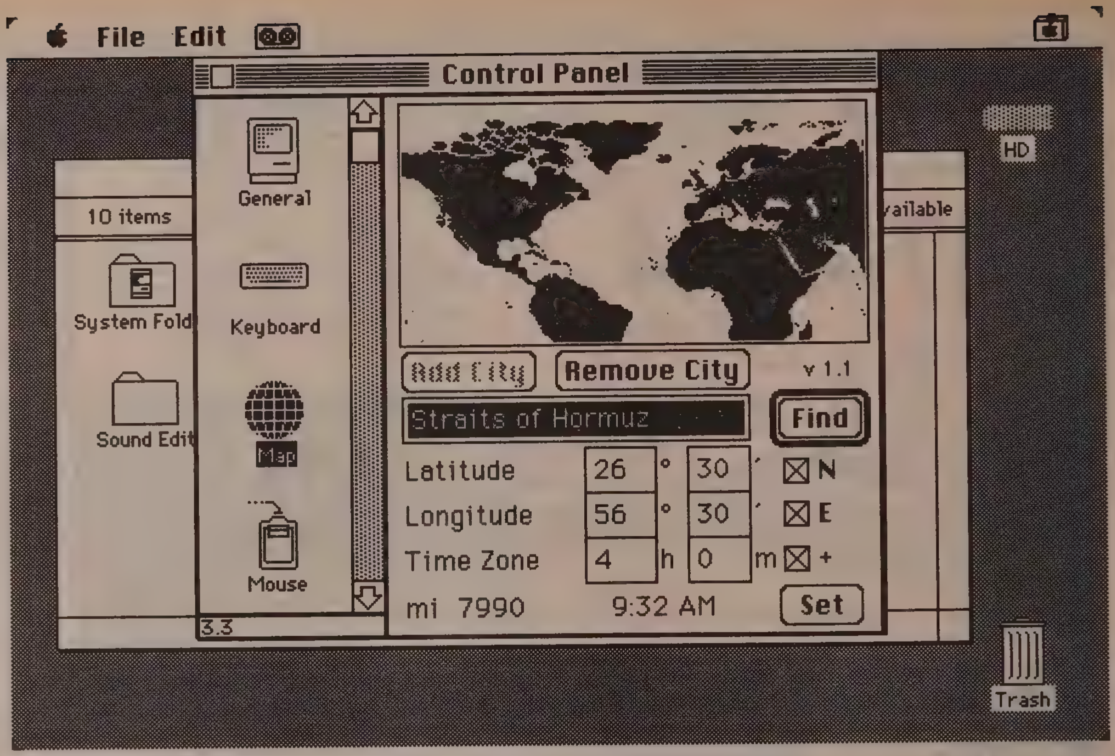
It is a desk accessory that appears as part of your control panel. It shows a scrolling map of the world. Nice, you say, but so what? Well, you can find a number of things with this remarkable thing. You can determine the local time at any place in the world. You can find out the time difference between any two points. You can determine the distance between any two points on the planet.

If you didn't have a planetary point of view before, you probably got one the day we mistook an airliner for an F-14 over the Persian Gulf. I found out that evening that the Straits of Hormuz are at about 27 degrees North latitude, and 57 degrees East longitude. It is twelve hours later there than it is here, so the Ayatollah was just getting up when I was looking at the map. It is 7990 miles from San Francisco to those waters.

There are thirty cities listed in *Map*, which you can find by name. You can add others if you choose. I was even able to tell the program that my friend in St. John's, Newfoundland, has her clock set four and one-half hours later than mine.

Map is included with System 6, at no extra charge.

These are the programs I use to supplement *HyperCard*. I recommend them to you.



Straits of Hormuz
Latitude 26 ° 30 ' ☒ N
Longitude 56 ° 30 ' ☒ E
Time Zone 4 h 0 m ☒ +
mi 7990 9:32 AM

Map is included with System 6.0 and works as part of the control pane;.

Well, Well, Well...

If you haven't checked out the WELL, you should. There is a *HyperCard* Conference. Some of the best discussion there is, political, social and just fun, is found on this board. It's at (415) 332-6106, among other numbers.

The Feedback Loop

You can leave messages, comments, praise and blame for stackware and *HyperCard* on the WELL (415/332-6106; user ID "birrell") or CompuServe (User ID 72466,3567) or by US Mail to: Birrell Walsh, PO Box 1104, San Francisco CA 94141.

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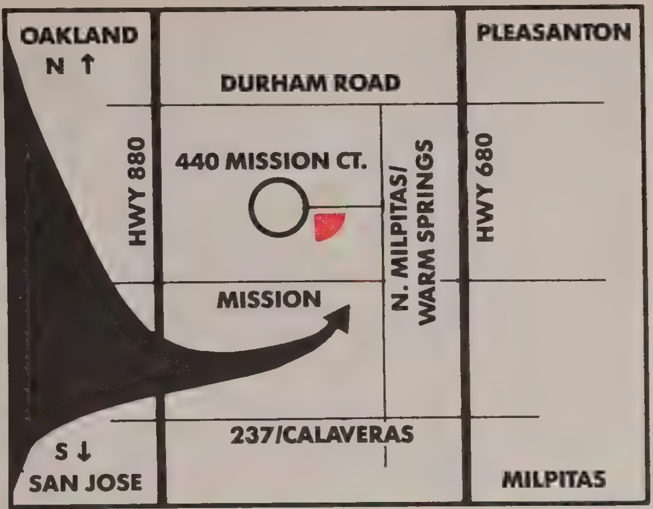

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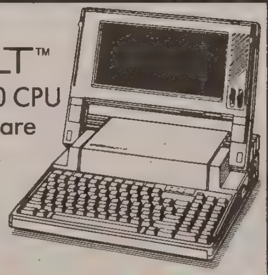

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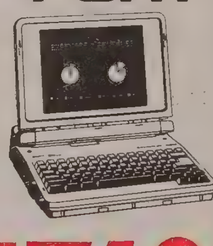

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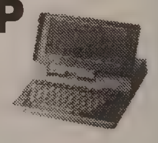

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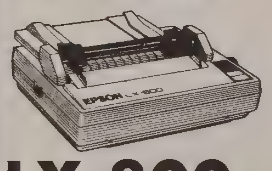

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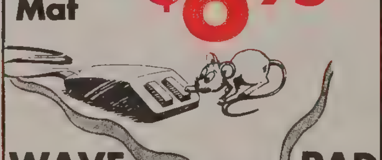

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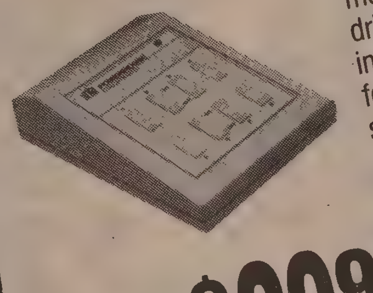

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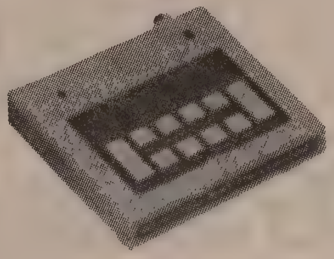

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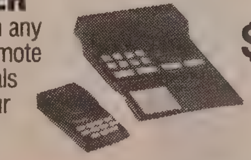

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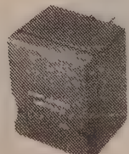

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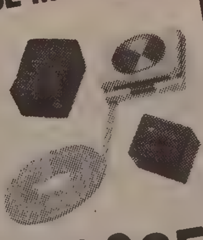

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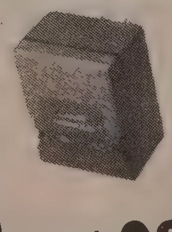

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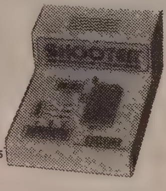

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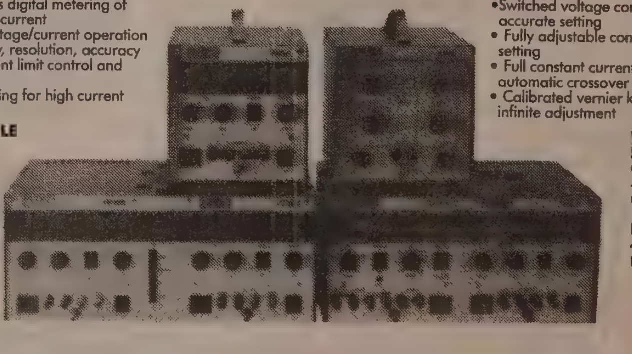

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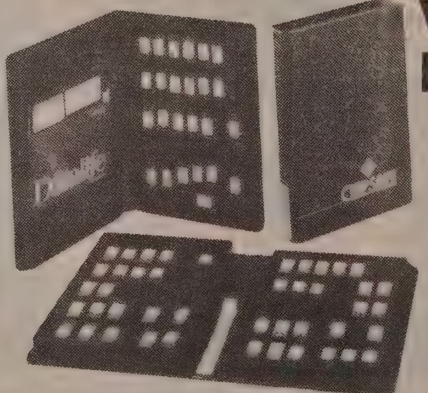

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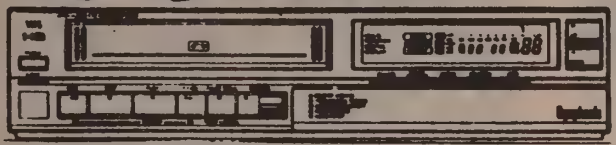

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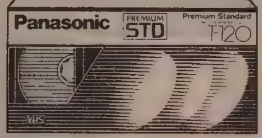

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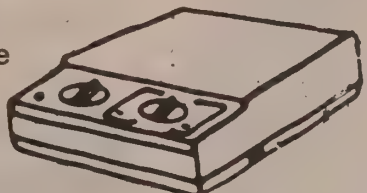

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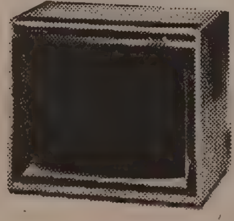

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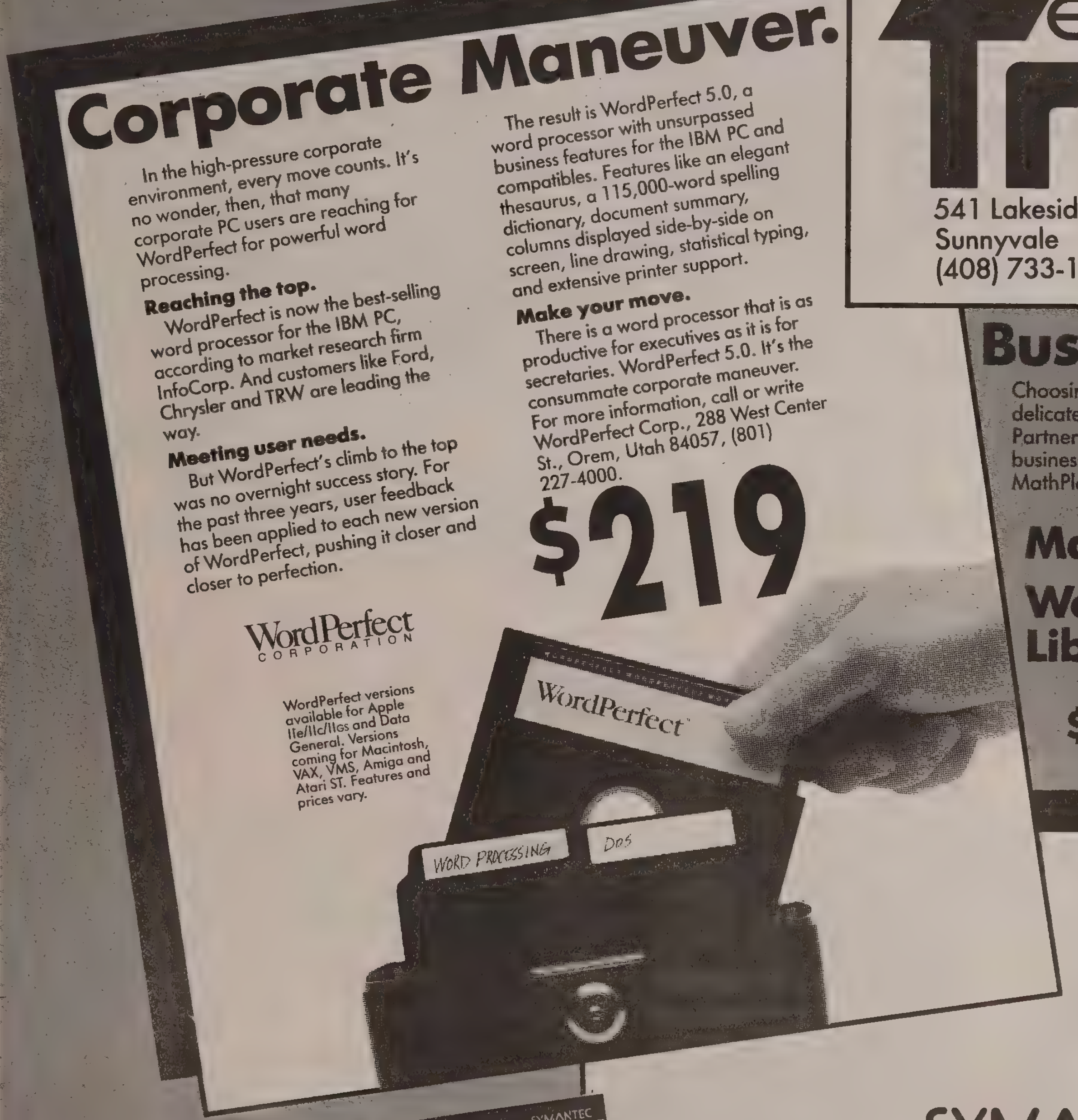

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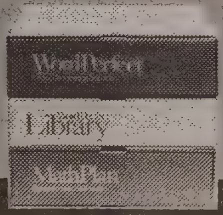

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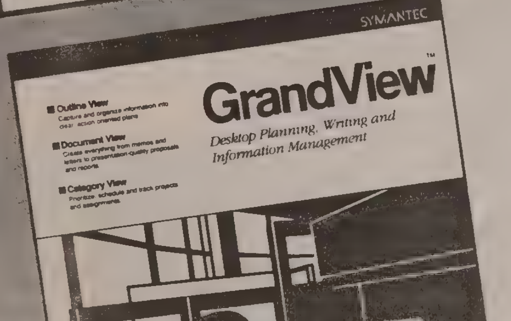

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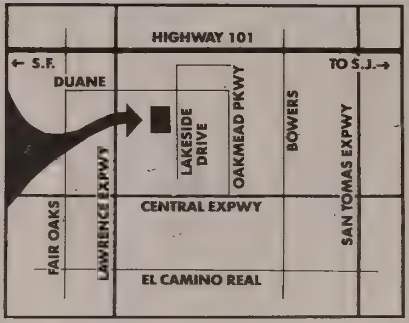

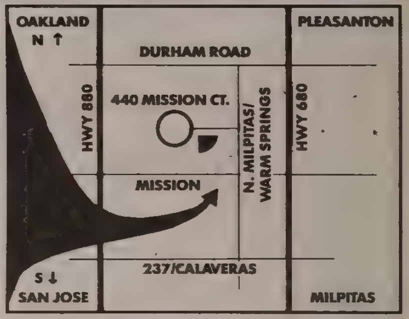

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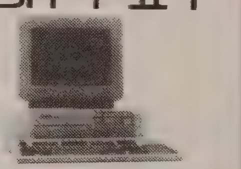

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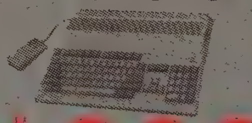

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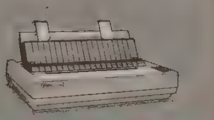

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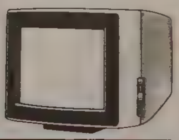

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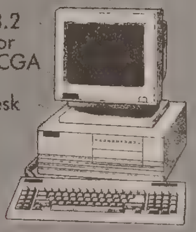

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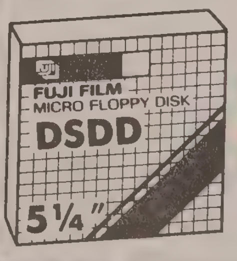

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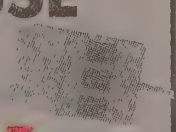

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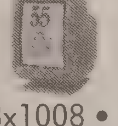

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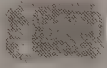

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BY ROBERT BEAUCHAMP

On To Connectivity!

No Excuses With MacLink Plus

If you watched any part of the Democratic National Convention this summer you saw a coming together the like of which has never been seen in that party's often divisive ranks. On the same platform we saw a conservative Star Wars supporter, a liberal whose relative position makes him a moderate and a liberal who makes most liberals look like conservative Star Wars supporters.

Now, if the Democratic party can bring these far-flung positions together and bridge the gap between left and right, there is *no reason* why you can't get out there and bridge the gap between your DOS PC and your Macintosh.

No, I haven't been listening to too many Jackson speeches, I'm not just reaching for the stars because it's better to reach for something you can't reach than to have no stars to reach for. My goals are achievable. Within my lifetime. Actually within the next afternoon if you can get down to the software store over your lunch hour.

I'm now officially making a challenge. I'm challenging the American people, I'm challenging all computer owners, and yes, I'm challenging *you* (imagine me with a white beard pointing directly at you), I'm challenging you to go forth and connect a Mac to a PC.

And believe me, you'll feel good about it.

How do I do it, you ask? How can I contribute?

One of the best and easiest ways is to go out and get *MacLink Plus* from DataViz.

MacLink Plus

MacLink Plus is an inexpensive package which contains all the software you need for file transfer and translation, as well as a cable.

We use *MacLink Plus* to transfer and translate files from a PC to a Mac. As a bonus, however, you also get a handy telecommunications package. *MacLink Plus* can be used with modem transfers complete with the XMODEM error checking protocol.

The bulk of your work with *MacLink* is done on the Macintosh. Once it is set up, nothing needs to be done from the DOS end. Setting up is simply a matter of copying the *MacLink* program and accompanying files onto your Mac's working disk or hard disk.

On the PC end, a batch command file is included which installs the proper files on your PC's hard disk. My only complaint is that the information about the batch file is buried in an appendix at the back of the documentation rather than being right up front in the Setting Up chapter.

In the interest of those documentation dozers out there, to install *MacLink* on your PC's hard drive, complete with subdirectory, put the *MacLink* disk in the A: drive and type **COPYTOHD C:**.

Once in your C: drive and in the MACLINK subdirectory, you call up *MacLink* and set the parameters you expect to use. You decide which serial port you will use: COM1, COM2, etc., whether the communications are via cable or modem and the baud rate.

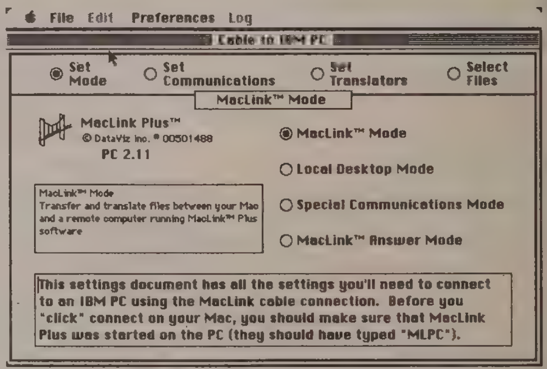
For security you can use a password and restrict certain disk units from outside access. You can save these settings under a separate batch file name if you link up with Macs with different settings. As the PC is a passive partner, all you have to do is get "online" by pressing O and wait for the call.

The cable that is included with Mac*Link* has a standard 25-pin connector for your PC's serial port. A 9-pin AT style serial port adapter is also included. On the Mac end is the Macintosh Plus 8-pin circular connector. If you have an older Mac with the 9-pin connector, you will have to send your cable back to DataViz; they will replace it with the cable you require at no extra cost.

The first basic function of *MacLink* is Mac-to-PC file transfer. While you can set *MacLink* 's parameters from its main menu window, DataViz has conveniently included preset scenarios. Clicking the Mac To PC Cable icon automatically brings up the settings you need to transfer files over the *MacLink* cable to the PC. There are also presets for Mac-to-PC transfers using modems and Mac-to-Mac modem transfers.

Once in the main window, you click the Select Files button. This moves you to a window very similar to the Font/DA mover you've probably already used. On the left side is the window for Macintosh files, and on the right, the PC files window. When you click the connect button, *MacLink*

One of the best aspects of MacLink is that it not only transfers files from PC to Mac, it also translates them at the same time.



● Set Mode

● MacLink™ Mode

MacLink™ Mode
Transfer and translate files between your Mac and a remote computer running MacLink™ Plus software

This settings document has all the settings you'll need to connect to an IBM PC using the MacLink cable connection. Before you "click" connect on your Mac, you should make sure that MacLink Plus was started on the PC (they should have typed "MLPC").

MacLink supports a variety of file transfer modes.

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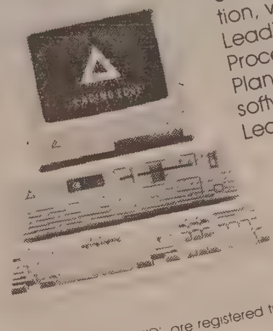

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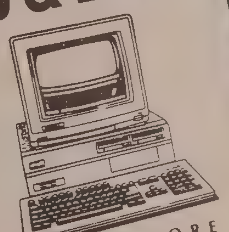

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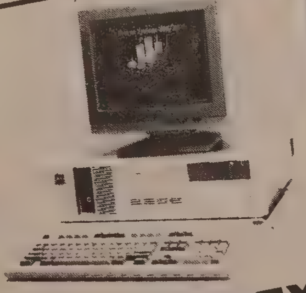

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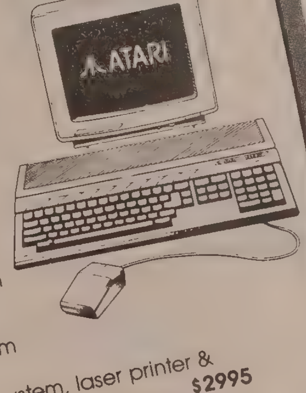

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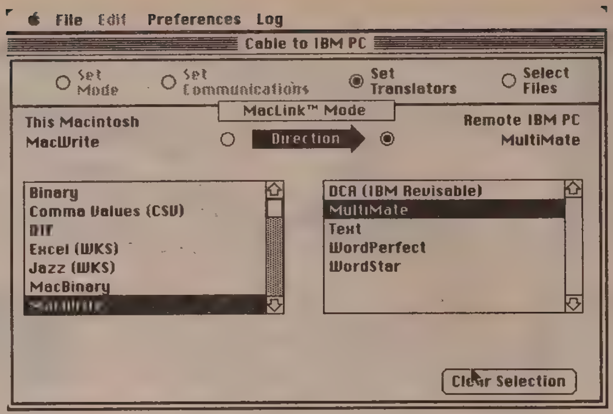

This Macintosh
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MacLink lets you transfer files between popular Mac and PC applications.

hooks your Mac up to the waiting PC.

One of the best aspects of *MacLink* is that it not only transfers files from PC to Mac, it also translates them *at the same time.* With a network you would have to move the files and in a separate operation translate them into the form you wanted.

Before transferring files with *MacLink* you use the Set Translators screen. Here you click the file format of the file you want to translate, then click the file format you want it translated to, again a window similar to the Font/DA mover. This is also where you determine the direction of the transfer, Mac to PC or PC to Mac.

You then go back to the Select Files window, select your files, and *MacLink* transfers and translates at the same time.

MacLink Plus accommodates a wide range of formats. You can translate all the biggies like *dBASE, Lotus 1-2-3, MultiMate, WordPerfect* and *WordStar* on the DOS side to *MultiPlan, Excel, MacWrite* and *Word* on the Mac side. More translators are available on *MacLink,* so if you don't see your favorite programs listed here, don't let that deter you from checking out *MacLink Plus.*

One translator which will excite more than a few desktop publishers is the *PageMaker* PC-to-*PageMaker* Mac translator. As we've mentioned before in this column, programs designed for the Mac and PC should have compatible files. *PageMaker* seems to be a special case, however. We'll have a complete report on desktop publishing and graphics in a future column.

If the PC you want to transfer files to and from is out of the reach of the *MacLink* cable, you'll want to use a modem hookup. The only difference is a few settings in the Set Communications screen. You'll have to reduce the baud rate from *MacLink*'s high of 57,600 to whatever speed your modem supports. Again, the PC side waits for the call. On the Set Communications screen, you enter the phone number and click the connect button.

MacLink's telecommunications capabilities aren't limited to Mac-to-PC file transfers. You can use it to connect to your favorite bulletin board. As with any communications package, you chose your baud rate and parameters, 1200 baud, 8 bits, no parity and 1 stop, for example.

Whereas dedicated telecomm packages will offer a variety of error checking protocols, such as XMODEM, YMODEM and Kermit, *MacLink Plus* only offers XMODEM. This is not a problem, however, as XMODEM is reliable for almost all telecomm transfers.

If you've been hedging on joining the connectivity movement, you now have no excuse. *MacLink Plus* is an inexpensive product that takes little time or effort to set up or use. Remember, if the Democrats can bridge the gulf between left and right, you can bridge the gulf between the Mac on one side of your desk and the PC on the other. Thank you, America and good night. (DataViz, 16 Winfield Street, Norwalk, CT 06955 (203) 866-4944.)

Mystery Files

I know that there are a lot of Mac users out there who have mysterious PC files appearing on your hard disk. Whether you're on a network connected to PCs, you happen to have an Apple 5 1/4" disk drive, or you telecommunicate with friends on DOS PCs, you're wondering what to do with them. Besides trash them that is.

A good suggestion it to try out the Apple File Exchange utility that came with your Mac. If you don't have it, you can get it along with the latest system from your local user group. It features many of the same translators that are found in *MacLink Plus* and other connectivity programs. It operates exactly like the Font/DA mover, only you translate files instead of moving them. Find out what those PC hackers are saying about you! ☐

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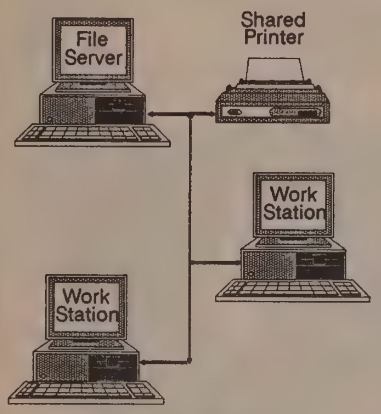

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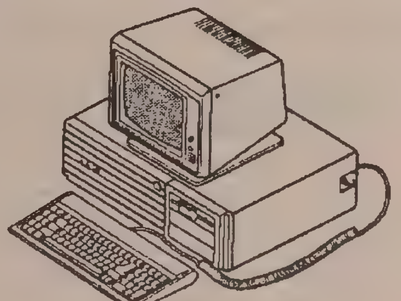

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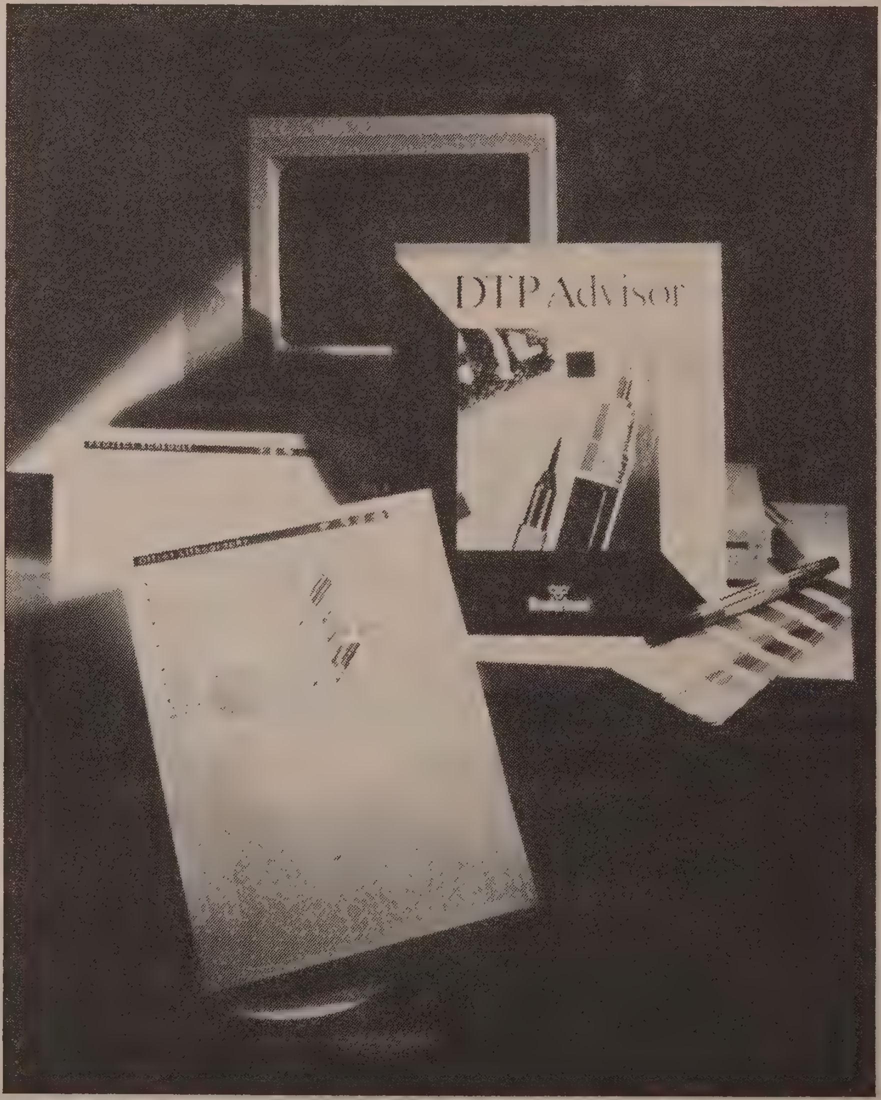

HyperCard DTP Advisor Helps Hone Design Skills, Manage Projects

The new *DTP Advisor HyperCard* application is a guide for novice and professional desktop publishers alike. Consisting of a design and layout tutorial and a project management system, *DTP Advisor* helps novice desktop publishers with little design experience become more skilled at creating attractive publications. It also helps the experienced DTP professional to manage projects with a database and a system of interactive forms that helps oversee projects from start to finish. Guidance includes identifying a target audience, establishing schedules, getting printing estimates and organizing outside resources. ($79.95.) *DTP Advisor*, Broderbund Software, 17 Paul Drive, San Rafael, CA 94903-2101. (415) 392-3200.

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—Tips from Z-Tech Systems—

The nicest feature of the Z-386 computer, other than 20MHz speed, is the speed-up memory above 640K. Here's where many Compaq clones missed the boat. Most of the 386 clones have 512K on board. But to expand the memory you need a 32 bit memory card, which doesn't exist yet. So you end up with 16-bit data transfer with D-RAM. Z-386 uses all of its memory on a special 32-bit memory card, which comes with it. It is expandable up to 10MB of static column RAM. Static RAM is much faster than D-RAM, and does not require a refreshing cycle which wastes CPU time. The extra 384K, other than 640K, can be used to speed up data I/O, or to relocate the EGA Bios into RAM for ultra fast drawing.

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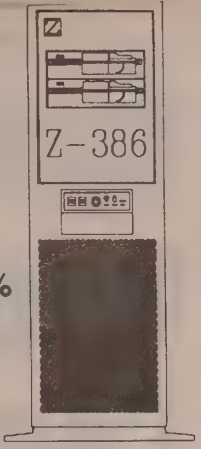

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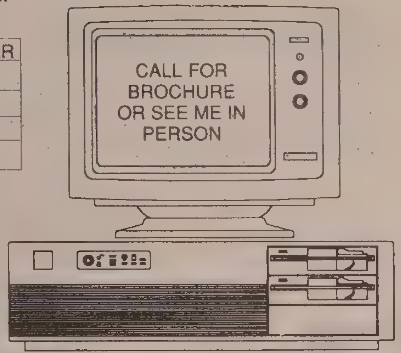
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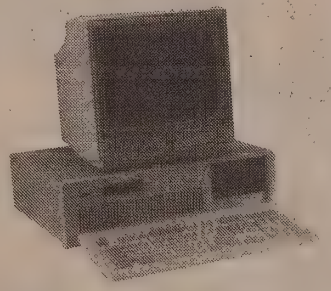

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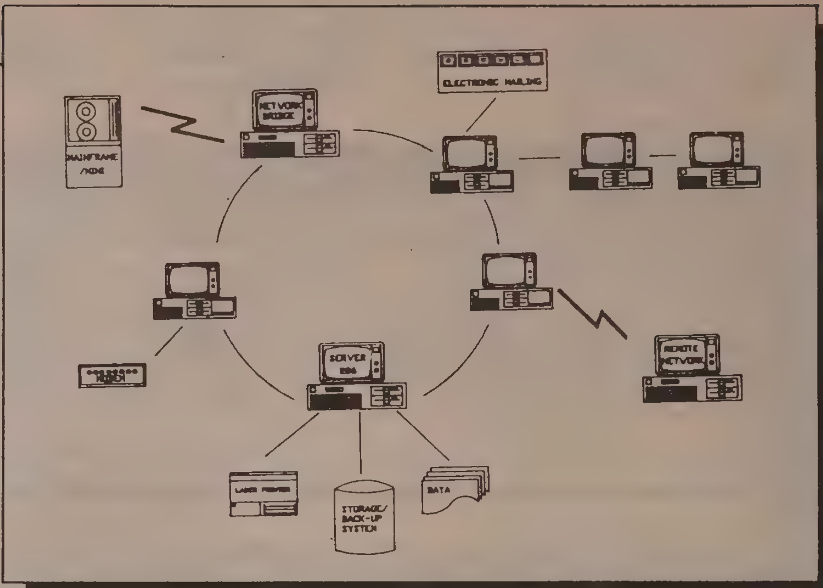

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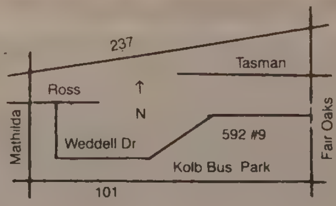

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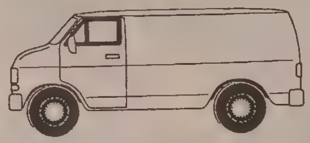

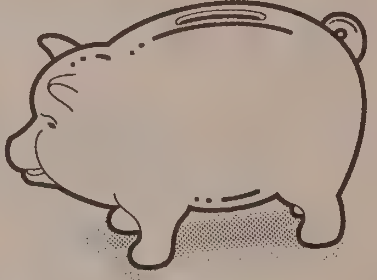

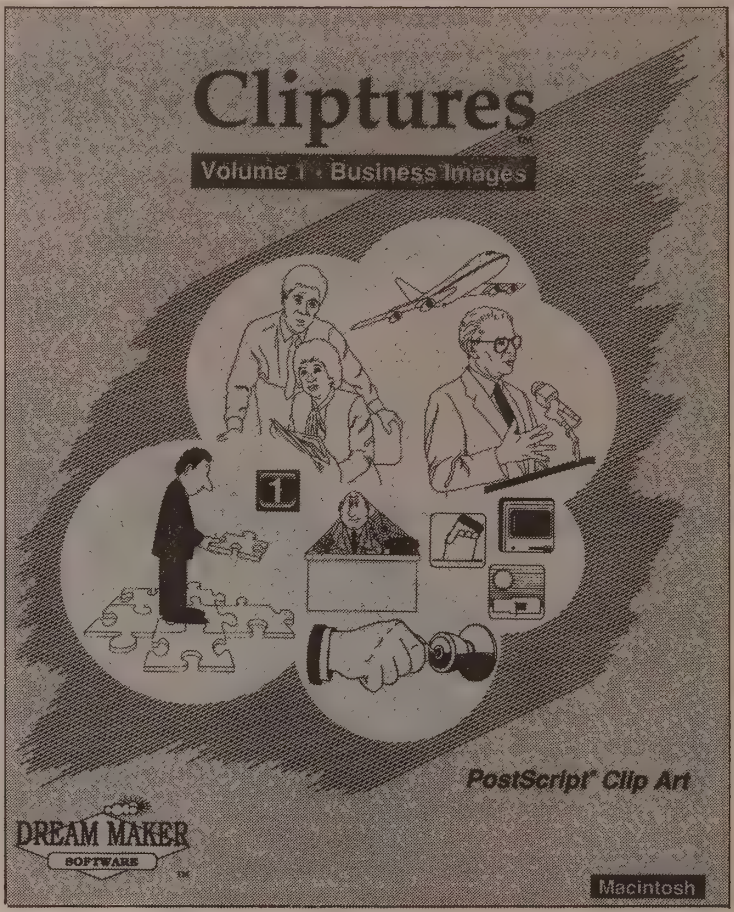
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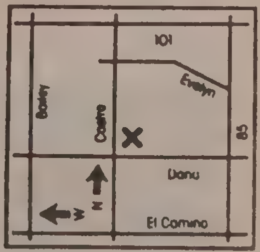

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Programming Roads Less Traveled

continued from page 46

COMPARATIVE PROGRAM LISTINGS

Forth Listing

```
\ cv.scr

create inputline 255 allot
variable vowelcount variable vowelcount variable total
create vowels
65 c, 69 c, 73 c, 79 c, 85 c, 89 c,

: lowcase? dup 96 > swap 123 < and ;
: upcase? dup 64 > swap 91 < and ;
: letter? dup lowcase? swap upcase? or ;
: capitalize dup lowcase? if 32 - then ;
: vowel?
   capitalize 6 0 do dup vowels i+c@ = swap loop
   drop or or or or or ;

char->cv decimal
   dup letter? if
   vowel? if 86 1 vowelcount +!
   else 67 1 consonantcount +! then
   then ;

: get-line inputline 255 expect ;
: Line-convert
   span @ 0 do inputline i + dup c@ char->cv swap c! loop ;
: line-display span @ 0 do inputline i + c@ emit loop ;

: program
   0 vowelcount ! 0 consonantcount
   0 total !
   ." Please type up to 255 characters and hit return." cr
   cr get-line line-convert
   vowelcount @ consonantcount @
   2dup + dup total ! cr cr
   ." Thank you." cr cr ." There were " . ." letters:"
   cr cr
   dup . ." of them or " 100 * total @ / . ." % were
   consonants." cr cr
   dup . ." of them or " 100 * total @ / . ." % were
   vowels." cr cr
   ." The pattern was:" cr cr line-display cr cr
   clear ;

program
```

Scheme Listing

```
; ------------------------------------------------

; cv
; A program to count vowels and consonants

; ------------------------------------------------

; Preliminary definitions

(define nl newline)

(define vowels (string->list "AEIOUY"))
(define consonants (string->list "BCDFGHJKLMNPQRSTVWXZ"))
(define vowelcount 0)
(define consonantcount 0)
(define consonant? (lambda (x) (pair? (memq (char-upcase x) consonants))))
(define vowel? (lambda (x) (pair? (memq (char-upcase x) vowels))))
(define char->cv (lambda (ch)
    (cond ((consonant? ch) #\C)
      ((vowel?  ch) #\V)
      (else    ch))))

(define inputlist (string->list (read-line)))

(define outputlist (map char->cv inputlist))


; Get the data.

(display "Please type a line of up to 255 characters and hit return.")
(newline)

; Prepare the pattern string.

(for-each (lambda (x)
   (cond ((eqv? x #\V ) (set! vowelcount (+ vowelcount 1)))
    ((eqv? x #\C ) (set! consonantcount (+ consonantcount 1)))))
   outputlist)

; Prepare calculated results.

(define total (+ consonantcount vowelcount))
(define vowel% (if (eqv? vowelcount 0)
     0
     (quotient (* 100 vowelcount) total)))
(define consonant% (if (eqv? consonantcount 0)
     0
     (quotient (* 100 consonantcount)
total)))

; Show results

(newline) (newline)
(display "Thank you.") (newline)
(newline)
(display "There are ")(display total)
(display " letters:
")(newline)(newline)
(display consonantcount) (display " of them or ") (display consonant%)(display "% are consonants.")(newline)
(display vowelcount) (display " of them or ") (display vowel%)(display "% are vowels.")(newline)(newline)

(display "The pattern is:")
(newline)(newline)
(display (list->string outputlist))
(newline)(newline)(newline)
```

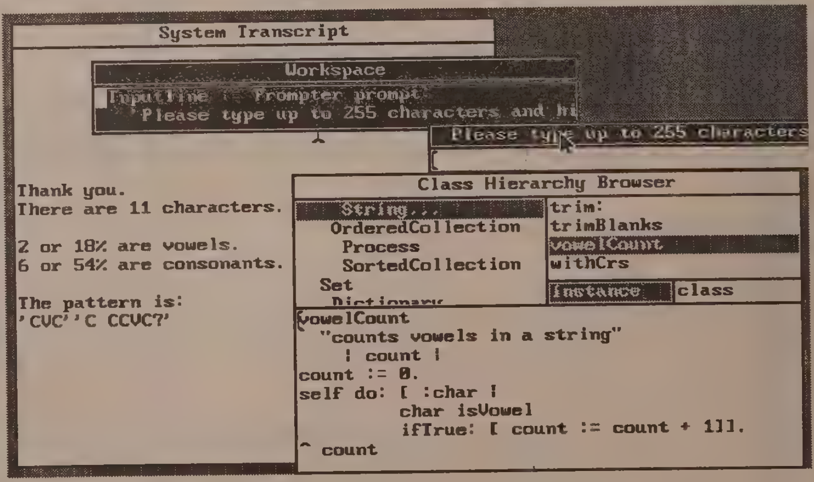
APL Listing

```
$ cv
   'Please type up to 255 characters and hit return',tcnl
   inputline is inline
   vowels is 'AEIOUYaeiouy'
   consonants is
'BCDFGHJKLMNPQRSTVWXZbcdfghjklmnpdqrstvwxz'
   areV is inputline member vowels
   areC is inputline member consonants
   tcnl,tcnl,'Thank You'
   vowelcount is +/areV
   consonantcount is +/areC
   total is consonantcount + vowelcount
   outputline is inputline ⍝ ...at least until we work on it.
   outputline[areV/iota rho inputline] is 'V'
   outputline[areC/iota rho input line] is 'C'
   'There were ',(format total),' letters.'
   (format vowelcount),' or ',(format 100 x vowelcount % total),'% are vowels.'

   (format consonantcount),' or ',(format 100 x consonantcount % total),'% are consonants.'
   tcnl,'The pattern is:',tcnl, output line
$
```

Smalltalk Listing

The Smalltalk program is distributed through several windows. Please see the illustration.



```
Inputline := Prompter prompt:
  'Please type up to 255 characters and hi
```

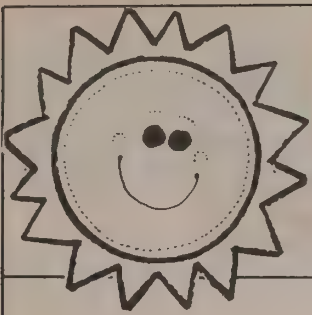
```
Please type up to 255 characters
```

```
Thank you.
There are 11 characters.

2 or 18% are vowels.
6 or 54% are consonants.

The pattern is:
'CVC''C CCVC?'
```

```
vowelCount
  "counts vowels in a string"
    | count |
count := 0.
self do: [ :char |
        char isVowel
        ifTrue: [ count := count + 1]].
^ count
```



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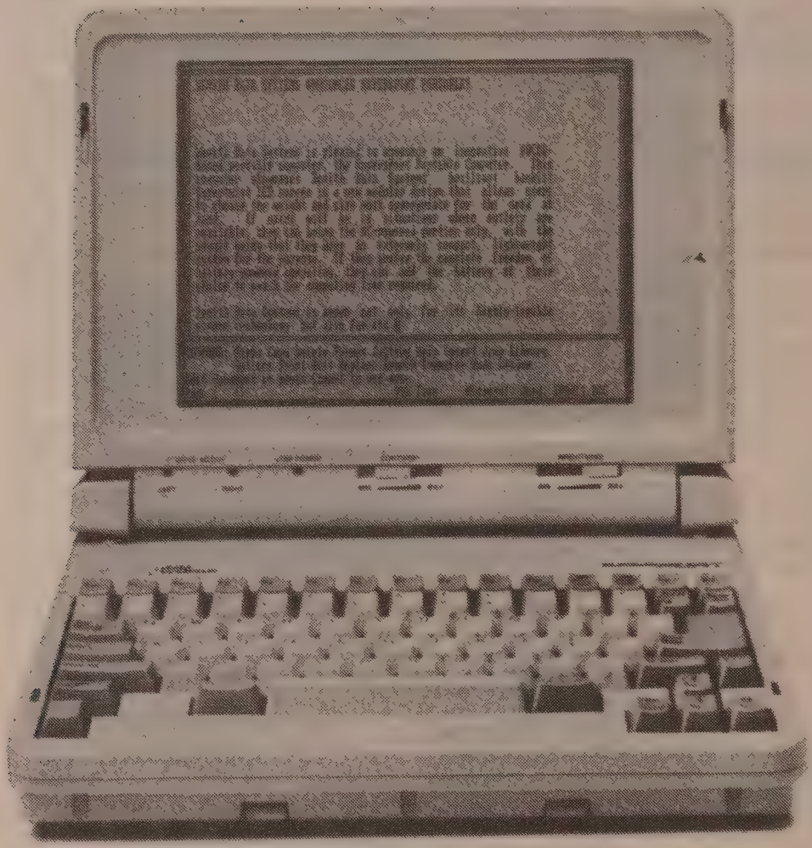
Zenith's Second Generation Portable: The SuperSport Laptop

By Ed Kahn



Once considered a niche market, the laptop business has undeniably become a vital part of the mainstream computer industry. Zenith has just come out with a new line of laptops ranging from an entry level 8088-based PC-compatible unit all the way up to a super-powerful 80386 machine that boasts speed rivaling the fastest desktop models.

The introduction of second generation machines speaks to the maturity of the laptop business. Zenith, considered by many to have the best laptop for word processing applications, has just replaced its model 183 with an updated unit called the SuperSport, generally available at a discounted price of about $2500. The SuperSport boasts a number of refinements and additions to guarantee its position as one of the best in its class.

The new portable, like its predecessor, offers a backlit LCD display clear enough to make it possible to work on the machine hour after hour without serious eye strain. The machine offers the additional capability of using a conventional CRT monitor, which can plug into the portable. The SuperSport is designed so that its built-in LCD can fold all the way back and slide under an optional stand ($49.00) which can hold a CRT. This gives a convenient setup that begins to rival a desktop computer. The main drawback is that the laptop does not support an EGA display, making its use with a color monitor unacceptable for long term word processing. If not for this limitation, I could seriously consider using this machine with a good quality color monitor in lieu of a desktop computer. This arrangement would allow you to have a monitor at home and at the office and carry the portable back and forth.

The keyboard of the new Zenith is well designed; while it does not have the function keys laid out like an XT, one quickly becomes used to these keys strung across the top as they are on an AT. And while there is no numeric keypad on the keyboard, there is an embedded numeric keypad within the standard keyboard which is accessible through a combination of keys which lock a key cluster into the numeric configuration. An optional numeric keypad ($99.00) is also available.

Zenith has a host of options available for the new SuperSport. The most popular of these are 1200 and 2400 baud Hayes compatible modems ($299.00 and $549.00) which can be installed internally by the user. Although I have yet to use either of these, the documentation that comes with the computer includes a hefty section on their use, suggesting that there will be no surprises in store for those who rely on a modem. Other popular options include a numeric coprocessor ($285.00), which is user installable, and an additional megabyte of RAM with EMS (Extended Memory Specification). This latter option is installable only by a service technician.

The SuperSport has a number of new design features that make it a good deal more flexible than its predecessor. The most important design modification is a removable battery pack.

Desktop Connectivity

Although portable computers are getting good enough to serve as the only computer, the majority of laptop users still use these machines in conjunction with a desktop unit. The SuperSport, like most laptops, uses 3.5" floppy disks. This may introduce some compatibility problems as so much software and data is available on 5.25" diskettes. To bridge this gap, Zenith has built in a port on the back of the unit which allows an external 5.25" disk drive ($399.00) to be connected to the unit. For my money, however, I would prefer to buy Traveling Software's amazing Lap-Link ($129.00) which allows the rapid transfer of files from another computer onto a laptop. This product should be standard equipment for any user who needs to transfer material—either programs or data—between any two MS-DOS computers. It comes with 3.5" as well as 5.25" disks and a cable that will work with any combination of ports the two computers being connected offer.

Zenith and some other manufacturers have wonderfully rugged and convenient carrying cases available for the SuperSport. The Zenith model, which lists for $59.00, has a padded compartment for the computer and battery pack. In addition, there is a large compartment that can hold the

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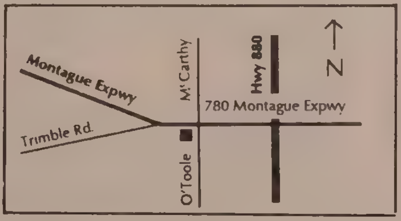

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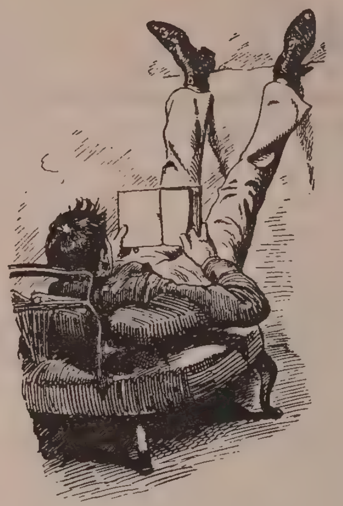

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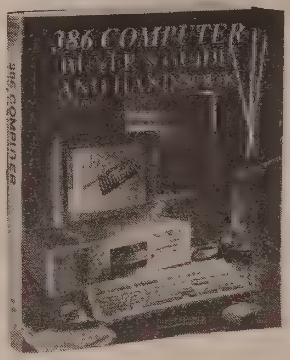

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power supply—the unit that provides the power either for the use of the computer or the charging of the battery. Each of these compartments has smaller pockets that are useful for carrying disks, documents or other accessories. There is a handle as well as a shoulder strap. While the case is a wonderful convenience that will allow you to carry the whole system conveniently, the computer itself has a built-in handle that works perfectly well for those on a tight budget or who have little need to carry the unit farther than to and from a car.

The SuperSport has a number of new design features that make it a good deal more flexible than its predecessor. The most important design modification is a removable battery pack. This offers a number of advantages. Most importantly, if battery operation is not the major reason for using a portable, the weight and size are considerably reduced. The basic computer is 12.2" x 12.2" without the battery pack. Depending on your choice of battery—two different packs are available—the depth of the unit will be increased by an additional two or three inches. Likewise, the overall weight of the unit will be decreased by a pound or two.

But more importantly, once the battery module is removed, all of the inconvenience of a battery operated computer goes as well. Battery operated computers satisfy a specific need, but certainly a lot of problems are eliminated when a computer is operated from a plug-in power supply. No more will you be interrupted by a low power indicator flashing, ringing or buzzing. No longer must you be concerned about saving every bit of power you can by shutting down the backlit display, limiting disk drive access or turning off the modem.

Nevertheless, when you do need a portable power supply, your fully charged battery pack can be easily attached to the computer and you can be assured of up to three hours of portable computing time. The recommended charge cycle is from eight to twelve hours for a full charge. Likewise, it is recommended that when you do use the battery you do not recharge until the computer is completely discharged. Otherwise, you will shorten the capacity of the power pack.

Other design changes have made the SuperSport the most attractive unit in its class. The disk drive has been moved from the top of the unit to the side, and all of the controls for the display have been moved to an area immediately below the screen itself. All in all, the SuperSport is sleeker and trimmer than its predecessor, with the width of the overall unit slightly larger than the keyboard itself. The 20-megabyte hard disk seems quieter than its predecessor.

The basic computer comes with the battery pack, DOS (including full documentation), a power supply, and a User/Technical manual. The manual is well written and amazingly complete in its coverage. And while the organization is clearly set forth in the table of contents, I still have a hard time knowing how the first-time user is to be expected to get the machine up and running.

Coincidentally with my reviewing the SuperSport, a friend purchased one and asked me to help him get started. The store where he purchased the unit gave him the necessary boxes and sent him on his way. He read the documentation, but was unable to understand most of it. Finally, I began to help. He loaded the operating system into the A drive and a menu for getting started appeared. But he did not know what to do with this.

In reality, setting up the machine was almost automatic. After he answered a few questions, the unit configured itself and he was ready to go. But his life could have been made a lot easier if Zenith had included the simplest and most basic step-by-step instructions designed for the least sophisticated user who has no background in setting up a computer. I could write such an addition to the manual in less than fifteen minutes, so there is no excuse for not taking the final step after they have gone to the trouble of making the setup procedure as simple as it is. Nevertheless, once the computer was up and running, my friend stayed up all night exploring its potential.

I have no reservation in recommending the Zenith SuperSport to anyone who wants a laptop. The more I use the machine, the more I like it.

Resources:

Lap-Link
Traveling Software
19310 North Creek Parkway
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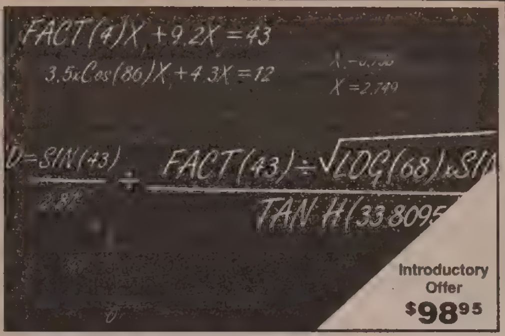

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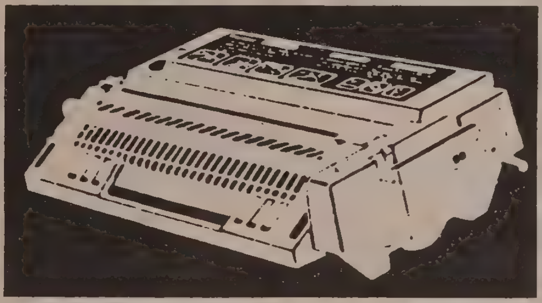

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Kaypro 2000+ Laptop

New Portability From Kaypro

By Robert D. Athey Jr.

The Kaypro II was my original personal computer, and it was portable enough for me to carry it off to Cleveland one week every month for six months in 1983. At 28 pounds, many called it luggable, rather than portable, but it fit under airplane seats, and I enjoyed showing it off. It had no internal modem, as such things were introduced a year or two later, and I was happy with 198K storage on my SSDD disks, as that's equivalent to a lot of paper (60+ pages). The 64K RAM was fine, as the (CP/M) programs ran well.

The years have passed, and the Kaypro 2000+ came my way. It's about half the weight of the old Kaypro II, runs the MS-DOS operating system and has lots of features much advanced from the old Kaypro II. It has an internal modem, a battery, two operating speeds (4.77 and 8.0 MHz nominal), two 3 1/2" 720K disk drives, 768K RAM and more. The Kaypro people bundle it with MS-DOS 3.21, *WordStar* 4 with all the related goodies, GWBASIC, and *Mirror* (a modem operating program). One little feature not seen on other computers is a little blue key. The documentation neatly explains the differences between this computer and the standard clones, with special sections dealing with the additional memory and with the blue key. It is well written and easy to understand.

Physically, the Kaypro 2000+ is just a little larger than a fat 8" x 11" looseleaf notebook. It comes with a built-in handle, which is great for carrying it about. When you open it up, the keyboard can be used at some distance from the rest of the computer with a 8-10" cable. The on/off switch is near the back of the opened-up surface in plain view, with the battery strength indicator and the screen contrast adjuster near the center. The screen brightness adjustment is just over the screen in the flipped up top. The keyboard array is a bit non-standard, but that's no big thing, as all my six computers have unique keyboards. Clock and calendar are in real time and seldom need adjustment (unless you run the battery down).

The blue key is a special command key, just like the Control or Alternate key on most MS-DOS computers. Pressing blue with an "M" key turns the modem on or off, for instance. The "Blue + S" key selects the slower 4.77 MHz speed, and the "Blue + F" key strokes selects the faster 8.0 MHz speed. Nothing happens if you select the speed you are already running, but you'll get a warm boot with speedup when you select the speed you aren't running.

The NEC V20 CPU in this computer gives the former CP/M user an added benefit. Most old CP/M programs will run with the special emulation software available from various sources.

Turning on the computer is a visual experience. The first thing you see is a blue region and a white region, which converts to a bunch of blue horizontal lines. Then a succession of messages shows ROM boot up procedure and a check of the memories. Then, it goes into the autoexec.bat for the A: drive.

There are standard programs that allow the Kaypro 2000+ to use the extended memory, and they can be put into the config.sys and autoexec.bat files. The screen is quite readable, clear and bright even in sunlight. Certain angles of screen in

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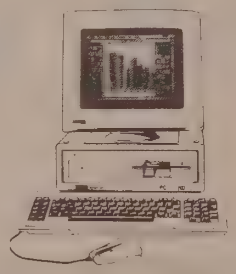

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sunlight give an appearance of shiny blue letters on a dull blue background, but it's blue on white in most lightings. Adjustment of the brightness (two fluorescent tubes are the backlighting) can give some flicker, but good adjustment avoids that. I hear complaints about problems seeing the cursor on laptop computers, but I find appropriate adjustment of brightness and contrast to see the cursor no problem on the Kaypro 2000+. The display is EGA compatible. One of the *PC Magazine* benchmark program features is an assessment of screen distortion. It's simply an adjustable circle with horizontal to vertical axis lengths compared, with 1.0 the measure of a true circle, and any other number an ellipse. The Kaypro 2000+ comes out at 1.5 or so, so there is a bit of distortion in that graphics are slightly flattened.

The outside of the case has each side loaded with openings for the needed I/O. There's a disk drive on each side (A: on the right), and printer ports next to each disk drive, with a snap-up plastic cover door over them. I'd expect those to break at the hinge eventually. The back side of the computer has the battery charger DIN port (uncovered!) and the telephone connection port for the modem (again, uncovered!) next to the handle. By the way, handle placement there is a good design feature, as it means the latches holding the computer closed don't have to be latched while you're carrying it.

Our evaluation, aside from the check on some games, included some word processing, some modeming and a lot of reading on-disk documentation that came with it. Among the word processing, I created the BAKUP user group newsletter and modemed it off to the BAKUP RBB. I used the shareware *ProComm* modem program because I didn't want to take the time to learn the *Mirror* program bundled with the computer. We also did up a MailMerge sending notices for an upcoming meeting, and plugged the Kaypro 2000+ into our HP DeskJet for printing. No problems, as all the cable connections we used matched, and the software bundled with the Kaypro 2000+ was easy to configure for what we wanted. *VP-Planner* ran my business monthly summary of income and expenses quite well, too.

> **In general, this is a good little computer. With the improvement in displays for the laptops in general, and on this one in particular, you can quite comfortably use this as a real laptop, rather than a luggable.**

I am unhappy with one feature in this computer. When the battery is running low, the indicator dial creeps over from the white (energized) section to the red (depleted) section on the display. But who's looking at the little indicator in mid-task? When I'm writing, I'm concentrating on the screen or the keyboard. When this animal runs low on power, it just shuts off—CRASH! I lost part of an article that way. Zenith's Z-181 has a flashing red light to warn you when the power's getting low; it would be nice if Kaypro adopted this method or included a little TSR warning program that flashes the message to screen.

The NEC V20 CPU (instead of the Intel 8086/88) in this computer gives the former CP/M user an added benefit. Most old CP/M programs will run with the special emulation software available from various sources (*ACCELKAY* from Intersecting Concepts, *UNIDOS* from Microsolutions, *RUNCP/M* from from MicroInterfaces).

In general, this is a good little computer. With the improvement in displays for the laptops in general, and on this one in particular, you can quite comfortably use this as a real laptop, rather than a luggable. This one is of a size to fit easily on the tray table on an airplane, too. It's plenty fast, has lots of memory and good disk storage capacity. I'd like to have had it in my 1983 travels. (Kaypro, 533 Stevens Ave., Solana Beach, CA 92075, 619/481-4300.)

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PageMaker 3.0 For The PC

For PC enthusiasts, one of the most impressive pieces of software ever to grace the registers of an Intel chip.

By Steve Guttman

PageMaker, the program that put the Mac on the map, continues to broaden its reach in the PC world. For Mac fans, who've grown up with the idea that text and graphics belong together, *PageMaker* is just another outstanding program. For PC enthusiasts, it is one of the most impressive pieces of software ever to grace the registers of an Intel chip. And as the first monster *Windows* application, *PageMaker* is helping shoehorn that operating environment out of obscurity as well.

For many PC users, there is still a rift between the worlds of text and graphics. In one arena are the PC word processors like *WordPerfect*, MS *Word* and *WordStar*, text-mode programs which are basically on-screen typewriters. In another are packages like *Harvard Graphics*, *Freelance Plus*, *Dr. Halo* and *PC Paint*, which focus on creating graphics. Great for drawing pie charts and making flyers for your garage sale, but you wouldn't use them to write your dissertation.

Desktop publishing is, in some sense, the marriage of these two worlds. DTP programs give you the ability to take text and graphics created in different applications and merge them in a document which can printed at near-typeset quality. For the graphically-oriented Macintosh, desktop publishing was a natural evolutionary step. For the schizophrenic PC, it was more of a genetically engineered feat. It was, in fact, impossible until the advent of graphic operating environments like *Windows* and GEM.

PageMaker, which in its first Macintosh incarnation was quite limited, has evolved into a powerful, robust program. And unlike certain top selling programs (read *1-2-3*), *PageMaker*'s continuing popularity isn't due to blind obedience to illusory standards, but to Aldus' successful ability to add important new capabilities to each successive release. Version 3.0 sports 35 new features including style sheets, templates, autoflow, text wrap and amazing control over contrast and density of graphics.

Hands On

The pasteboard analogy is central to understanding and using *PageMaker*. Imagine you're a weary editor, ready to lay out the PC software reviews after spending days rewriting adolescent drivel. Before desktop publishing came along, you'd sit at a layout table with a pile of typeset copy in one hand, and a heap of photos and graphics in the other. While the hours slid by, you'd arrange and rearrange your material, cutting your copy into various pieces, cropping and laying out your graphics. Eventually, you'd fasten them to dot (layout) sheets with wax. *PageMaker* lets you accomplish these tasks on the computer.

To begin composing a document, let *PageMaker* know the dimensions of the pages you'll be printing, margin widths and your best guess at the number of pages in your publication. *PageMaker* displays an image of the first page arranged in a window called the pasteboard. The pasteboard is couched in the aesthetically pleasing, icons-to-the-max, *Windows*/Macintosh style with pull-down menus along the top of the window and scroll bars along the right and bottom sides. The page area is where your publication is actually composed. The pasteboard area surrounding the page is used as a temporary holding place for text and graphics. Items relegated to the pasteboard will remain there until arranged in your publication.

PageMaker has an abundance of options that make layout easier. You can add horizontal and vertical rulers to the screen. You can also add ruler and column guides at any place on your page, and specify whether you would like text and graphics to "snap to" these guides. *PageMaker* also has a "tear-away" toolbox that contains tools to create and manipulate simple graphics, plus a text tool for making headlines and doing simple word processing. Master pages can be laid out which contain elements to be displayed on all pages of your publication.

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To lay out a piece of text, choose "Place" from the file menu and highlight the name of a text/word processing file from the directory list box. The cursor then changes to a "text" icon. Clicking the icon liberates the text, flowing it onto the page and down the current column. *PageMaker* will preserve most of the formatting of your word processor including bold, underlining, subscripts and style sheets (if your word processor supports them). Using the default flow option, the text will stop at the bottom of the column where it can be manually picked up and continued down another. Choosing the autoflow option (new to version 3.0) will cause the text to automatically flow down contiguous columns and consecutive pages until it has all been placed.

Within *PageMaker*, think of text as a kind of liquid that's held in containers called text blocks. These blocks are formed by uninterrupted sections of text terminated by the

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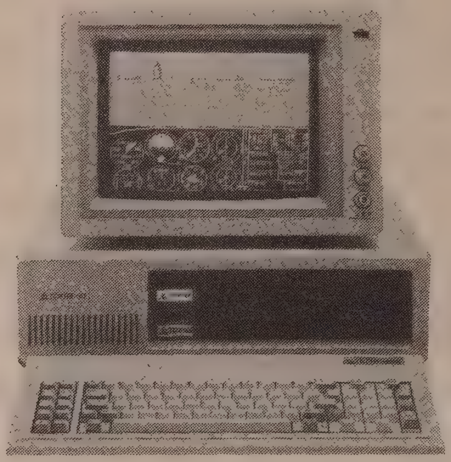

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boundary of a graphic or end of a column. Text that overflows the first block trickles into the second, and so on, like liquid in a computerized fountain. If any block changes size, then text within all the blocks has to be redistributed. If a block is moved, the flow of text (from block 1 to 2 to 3...) follows the block to wherever it's placed.

Once you understand this simple analogy, it's easy to manipulate text in *PageMaker.* Text blocks can be easily resized or moved, using the "grabber" handles on the top and bottom of the block. The text tool can be used to correct stories, to add or delete text and to create titles. With version 3.0 you also have the ability to manually kern (adjust the spacing between) letter pairs. Adding text to a block, or changing fonts, is like adding or pouring off liquid and causes the text in subsequent blocks to be readjusted accordingly.

Call me easily impressed, but I'm still stunned by *PageMaker*'s hyphenation system. Each word falling at a margin or column boundary is analyzed for the location where syllables break and the word is hyphenated at the syllable that breaks closest to the column border. Not being particularly adept at syllables or punctuation, I'm impressed by programs that are!

The "Place" command can also be used to insert computer graphics or scanned images into your publication. These graphics can be enlarged, shrunk, redimensioned, or cropped. With version 3.0, you can now (astoundingly) lighten, darken, and change the contrast of graphics — pretty fancy stuff! The shape of the graphic's halftone screen can also be altered to give you special effects.

Two major additions to version 3.0 (partially in response to *Ventura Publisher* — *PageMaker*'s main competition on the PC), are style sheets and templates. *PageMaker*'s style sheets, like those of MS *Word*, are groups of user defined options which contain various character and paragraph formatting commands — basically a shortcut for commonly used combinations. The formatting commands of a style sheet can easily be applied to any block of text.

Templates are an extension of the style sheet concept for a whole document. A template has placeholders for bodies of text and graphics, and your successive "Place" commands substitute real stories and pictures for the placeholders. Unfortunately, *PageMaker*'s templates really don't save you much time — it's just about as easy to "Place" graphics as replace them, and you generally end up rearranging the final publication anyhow. I would hope to see a more powerful implementation in future versions.

While *PageMaker* can theoretically be run from the PC's cursor control keys (sans mouse), it's best controlled with a rodent — all the popular flavors (Microsoft, Mouse Systems, Logitech) will work. And like most applications that carry MS *Windows* on their backs, *PageMaker* needs a fast processor. You'll want at least a speedy AT class machine, and if you're serious about desktop publishing you'll go '386. And as long as you're spending your boss's money, buy some expanded memory too. It's not required, but all big *Windows* applications run faster with the extra space.

Committed desktop publishers should also think seriously about getting a PostScript printer like the Apple LaserWriter. While you can get good results from an HP LaserJet, it's terribly slow when printing graphics, and doesn't have PostScript's scalable outline fonts.

We are also beginning to see some desktop publishing features included in the high-end word processors. *WordPerfect* 5.0, Microsoft *Word*, *WordStar 2000*, and *Manuscript* include (to varying degrees) the ability to include a graphic within a document. MicroPro (makers of *WordStar*), in the quest for ever more acronyms, has dubbed this "Word Publishing." Will this kind of a system suit your needs? Maybe. It depends what your needs are. For business reports, they're probably fine. But if you need WYSIWYG, stick to desktop publishing.

In short, Aldus has done an excellent job extending *PageMaker* into version 3.0. Probably the most impressive feature, in fact, is that there's not much to complain about. Many programs that get big also get ugly. *PageMaker* has been able to retain the elegance, simplicity and ease of use that made the little Mac program the classic it remains today. (*PageMaker*, Version 3.0. Suggested retail: $795. Available from Aldus Corp., 414 First Avenue South, Seattle, WA 98104, 206/622-5500.) ☐

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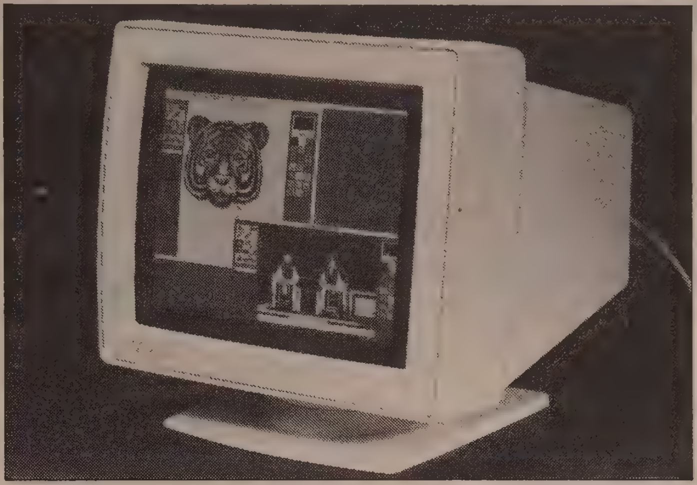

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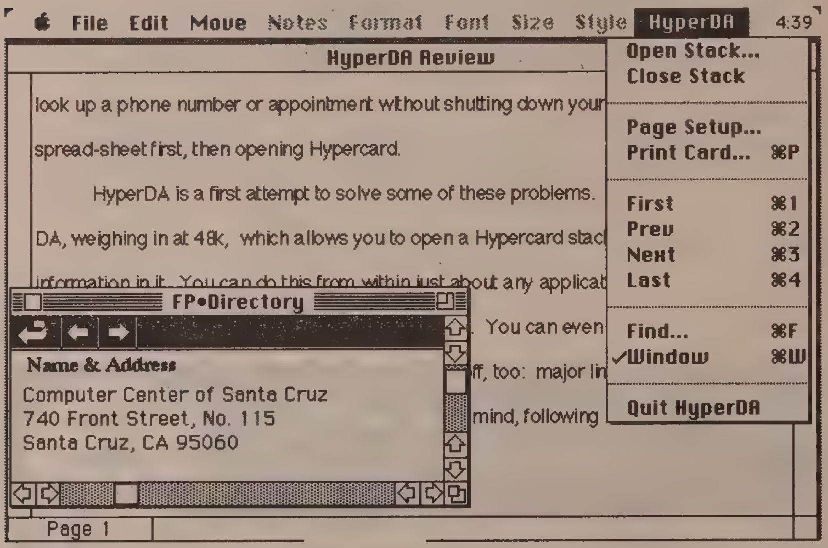
HyperDA

Working Around HyperCard's One-Meg Memory Requirement

By Fredric Lieberman

The *HyperCard* environment, offering unprecedented flexibility and ease in user customization along with a powerful new programming language for creating new stacks, has won broad acceptance in the Macintosh community. But such power and features do not come without a price: *HyperCard* is *big*—it requires most of the available memory in a one-megabyte Macintosh.



HyperDA Review

look up a phone number or appointment without shutting down your

spread-sheet first, then opening Hypercard.

HyperDA is a first attempt to solve some of these problems.

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information in it. You can do this from within just about any applicat

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FIGURE 1

Users of 512K Macs have not been able to access *HyperCard* stacks or features. Users with one-megabyte machines cannot access *HyperCard* with MultiFinder or Switcher while running another large program, such as the similarly powerful and big *FullWrite Professional* I'm using now. How inconvenient to organize your life around a nifty set of calendar-phone-address-expense stacks—then discover you can't look up a phone number or appointment without shutting down your word-processor or spreadsheet first, then opening *HyperCard*.

HyperDA is a first attempt to solve some of these problems. It is a medium-sized DA weighing in at 48K, which allows you to open a *HyperCard* stack and access the information in it from within just about any application without having to launch *HyperCard* itself. You can even browse stacks on a 512K machine. But small size has its tradeoff, too: major limitations of features and incompatibilities with some stacks. With this in mind, let's take a closer look at the features and limitations of *HyperDA*.

HyperDA is installed as any normal DA—you may use Apple's Font-DA Mover to install it into your System file, or use it with *Suitcase, Font-DA Juggler* or other DA handler. You may then select "*HyperDA*" from the - menu, and it will install itself as a new menu item to the right of your application's items (see Figure 1 for this and the following discussion). You can then open a *HyperCard* stack using *HyperDA*'s "Open Stack..." menu item, and browse through the stack using either the stack's own buttons, the "Find" command or the "First, Prev, Next, Last" commands. But "browse" here must be taken quite literally. *HyperDA* does not allow any kind of alteration to the original stack: it is absolutely, positively, a "read-only" tool.

You can, however, copy either text or graphics from your stack to the clipboard for subsequent pasting into another document. *HyperDA* will allow you to copy text from any visible field, and does not distinguish between locked and unlocked fields. Text entered as graphics, however, can be copied only as a graphic, not as editable text. -Option lets you peek at all buttons while -Option-Shift shows the card's fields.

The stack you are viewing with *HyperDA* may be seen in two modes—the normal *HyperCard* mode in which the card fills the entire 9" standard Macintosh screen, or a "Window" mode using a standard scrollable, resizable, zoomable window. In Figure 1, my address-book stack is open in a small window in the lower left-hand corner while I was working on an earlier paragraph of this manuscript; the address-book will remain available at a mouse-click until I quit *HyperDA* or close the stack.

The manual for *HyperDA* comes in both printed and *HyperCard* stack form, the latter serving as an online Help facility. The manual is clearly written and should be easy to under-

HyperDA allows you to open a HyperCard stack and access the information in it from within just about any application without having to launch *HyperCard* itself.

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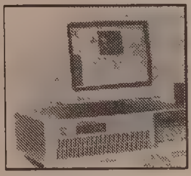

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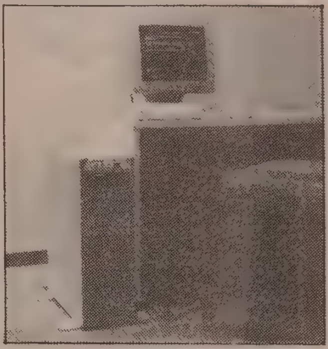

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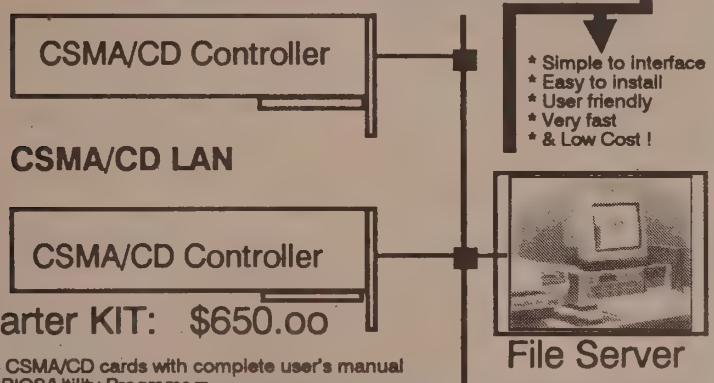

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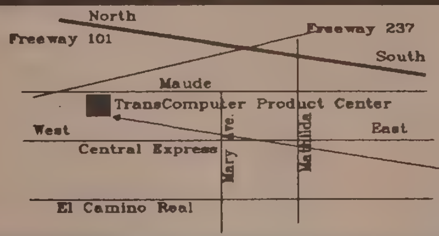

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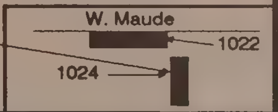

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stand for any *HyperCard* user. The online version, including tutorial materials, is nearly identical to the printed manual and should be sufficient for both learning and reviewing *HyperDA*'s features.

HyperDA is limited by the "browse only" ability—stacks that require the user to enter values (such as a calculator, unit-conversion stack or many games) are simply unusable. It is further limited by the small subset of HyperTalk that it recognizes. It does not, for example, recognize any visual effects—so cards simply replace each other without dissolves, wipes, zoom, or other such niceties. Further, it will not play sounds, often a major feature of a stack. Some stacks just don't work at all—particularly if they use complex scripts, since *HyperDA* doesn't recognize conditional branching instructions. Some oddities are harder to explain—for instance, *Focal Point* (and some other stacks) lose their button icons.

A serious bug that users should be aware of is an incompatibility with *HyperCard Reports*. If you should encounter the "report card" in any stack while browsing under *HyperDA*, you will end up in an infinite loop with no recourse save rebooting the machine. Another annoying bug occurs when the message box is showing and the *HyperDA* window is active: clicking on the message-box go-away box causes *HyperDA* (and the stack you are viewing) to go away too. *HyperDA* does not remember where your Home stack is—you must show it the path each time you open *HyperDA* (but it will maintain this path until you close the DA). One small bug in the manual: it says that the "go recent" command is supported (p. 24), which is not in fact the case.

Symmetry Corporation does offer a Technical Note for stack developers who want to be sure that their stacks will run as expected under *HyperDA*—but until *HyperDA* itself can be a bit more sophisticated, one wonders how useful such "correctly written" stacks will be.

Some of these bugs will be fixed in the new version (1.1) which is expected to be available in time for the Boston Expo, and shipping in September. The version reviewed here is 1.01. Telephone service was immediately available, though as with many small companies, no 800-number is provided. The tech support man I spoke with was knowledgeable, polite and patient. He knew the program well (sounded like he had written some of the code), and recognized most of the problems I reported right away.

Considering that Apple has given out very little information about the inner workings and formats of HyperCard, it is amazing that HyperDA works at all. But it does lead one to wonder why Apple did not anticipate the problem and write its own stack-browsing DA, as did Owl with its hypertext program Guide.

Considering that Apple has given out very little information about the inner workings and formats of *HyperCard*, it is amazing that *HyperDA* works at all. But it does lead one to wonder why Apple did not anticipate the problem and write its own stack-browsing DA, as did Owl with its hypertext program *Guide*. *HyperDA* at present is the only way that people with 512K machines can have any access to *HyperCard* stacks—and the only easy way to access stacks on larger machines without quitting your main application. But since the access it allows is so limited and unpredictable, one should be sure that the anticipated use is both feasible and worth the investment.

(*HyperDA*. Symmetry Corporation, 761 East University Drive, Mesa, Arizona 85203. List price $69.)

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Calendar Of Events

continued from page 14

September 24 Bay Area Computer Swap. Alameda County Fairgrounds. Microshows. Call: 1-800-345-7389.

September 24 Build An XT/AT & Learn To Use It Seminar. Foothill College Campus, Los Altos Hills. Foothill College. Call: Division Of Physical Sciences And Engineering, (415) 960-4488/4259.

September 27 – 30 Fiber Optic Communication Systems: Design Tools & Techniques Course. San Francisco. Integrated Computer Systems. Call John Valenti, 1-800-421-8166.

September 27 – 30 Fiber Optic Communication Systems: Design Tools & Techniques Course San Francisco. Integrated Computer Systems. Call: 1-800-421-8166.

October 1 – 4 Apple Expo. Paris, France. Apple Computer France. Free booths for selected US firms. Contact Philippe Haustete, 12, Avenue del'Oceanie, Zone d'Activites de Courtaboeuf, Boite Postale 131, 91944 Les Ulis Cedex, France.

October 3 – 6 Fifth Annual International Electronic Imaging Exposition & Conference. World Trade Center, Boston. Institute for Graphic Communication. Call (617) 232-EXPO for details.

October 3 DB2 Tools Symposium. San Francisco. Digital Consulting. Call: (415) 893-1234.

October 4 – 6 1988 And Beyond: Bus and System Solutions. Javits Convention Center, New York City. Call BUSCON (714) 669-9105.

October 4 – 7 Image Processing And Machine Vision Course. San Francisco. Integrated Computer Systems. Call: John Valenti, 1-800-421-8166.

October 5 MS-DOS Training Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

October 5 – 6 Market Opportunities In Home Office Boom Forum. Laguna Niguel. Home Office Computing magazine. Call: Carol Bunevich, 1-800-541-5513.

October 7 – 10 Second Annual Online Computer Auction. WGBH TV, Boston. Call: Edye Baker or Amy Chosky at (617) 492-2777.

October 10 Advanced C Programming Short Course. University of California Extension Conference Center, Santa Clara. UC, Berkeley Extension. Call: R. S. Newton, (415) 642-3112.

October 11 UNIX Networks. University of California Extension Conference Center, Santa Clara. UC, Berkeley Extension. Call: (415) 642-3112.

October 12 Advanced MS-DOS Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

October 12 Desktop Publishing With UNIX. University of California Extension Conference Center, Santa Clara. UC, Berkeley Extension. Call: (415) 642-3112.

October 17 The Future Of Personal Computing. Fort Mason Center, San Francisco. SF PC Users Group. Call (415) 221-9166.

October 17 – 19 Electronic Printer Conference. The Fairmont Hotel, San Jose. CAP International. Call (617) 878-6650.

October 17 – 19 Color Hard Copy Conference. The Fairmont Hotel, San Jose. CAP International. Call (617) 878-6650.

October 17 – 21 The Electronic Printing And Publishing Conference Series. The Fairmont Hotel, San Jose. CAP International. Call: (617) 982-9500.

October 17 – 19 Electronic Printer Conference. Fairmont Hotel, San Jose. CAP International, Inc. Call: Martha Johnson, (617) 982-9500.

October 17 – 19 Color Hard Copy Conference. Fairmont Hotel, San Jose. CAP International, Inc. Call: (617) 982-9500.

October 19 Desktop Publishing With Xerox Ventura Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

October 19 – 21 Electronic Publishing Conference. Fairmont Hotel, San Jose. CAP International, Inc. Call: (617) 982-9500.

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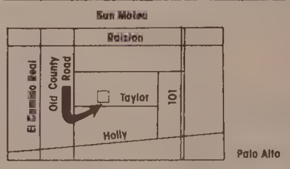

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October 21 – 22 1988 Fall Cue Conference. San Jose. Computer-Using Educators, Inc. Call: Rose Ryland, (415) 328-2248 or (818) 355-8807.

October 22 Computer Swap Meet. San Mateo County Fairgrounds, San Mateo. RK Productions, Inc. Call: 1-800-722-7927.

October 24 – 25 Electronic Messaging '88. Boston. Electronic Mail Association. Call: Michael F. Cavanagh, (202) 293-7808.

October 24 Fonts for Laser and Dot Matrix Printers. Hewlett Packard, Cupertino. Microsoft Word Users Group. Call: (408) 356-8805.

October 25 – 27 BELLCOM International Conference And Exposition. Moscone Center, San Francisco. Cambridge Marketing, Inc. (617) 860-7100.

October 25 – 27 Scientific Computing & Automation Conference And Exposition. Philadelphia Civic Center. Scientific Computing & Automation magazine. Call Don Weise, (201) 361-9060.

October 25 – 27 Scientific Computing & Automation Conference And Exposition. Philadelphia Civic Center Scientific Computing & Automation magazine. Call: Don Weise, (201) 361-9060

October 26 Advanced Lotus 1-2-3 Seminar. San Francisco. Prolog Financial Systems. Call: (415) 441-3117.

October 29 BADGE Killer Demo Contest. Stanford University, Palo Alto. Bay Area Amiga Developers Group. No phone.

November 2 – 4 The European Hard Copy Supplies Conference. Amsterdam, The Netherlands. CAP International. Call Martha Johnson, (617) 982-9500.

November 2 – 4 LOCALNET 88: The LAN Industry Show & Conference. Hynes Convention Center, Boston. Conference Management Corporation. Call Jay O. Marrs, (203) 852-0500 for information.

November 3 ISHM Northern California Symposium. San Jose. Northern California Chapter of ISHM. Call: Artis Buerki, (408) 683-4678.

November 16 – 18 Twelth Annual Western Educational Computer Conference. San Diego Princess Resort, San Diego. California Educational Computing Consortium. Call: Hal Roach, (714) 594-5611, Ext. 365.

November 21 C Language Presentation. Fort Mason, San Francisco. SF PC Users Group. Call (415) 221-9166.

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*As a community service, **MicroTimes** lists trade shows, seminars, and other special events in the Calendar of Events free of charge on a space-available basis. To improve the likelihood of your listing's timely inclusion, please make sure we have the necessary information no later than the first of the month two months before the cover date of the issue in which you'd like it to appear (i.e. the deadline for the March issue, on the street in February is January 1). Send to: MicroTimes Calendar of Events, 5951 Canning St., Oakland, CA 94609.*

News about user group meetings and other regularly scheduled activities should be sent to User Group Network at the same address.

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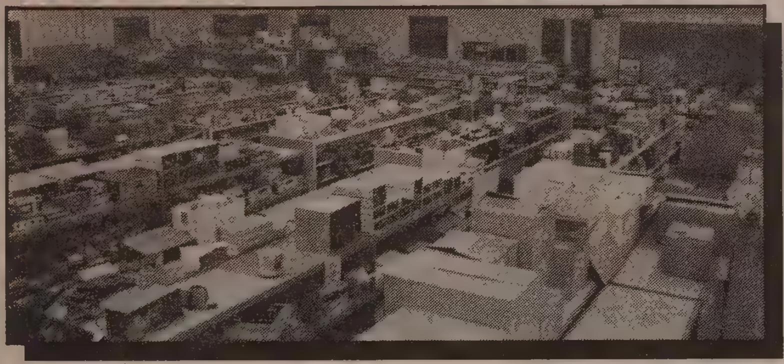

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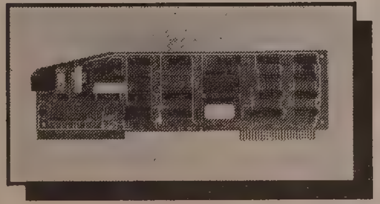

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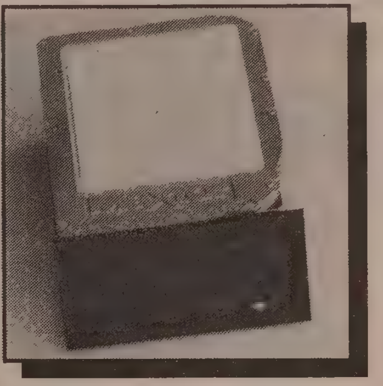

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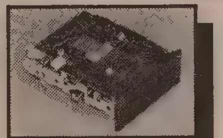

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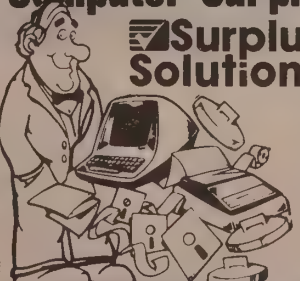

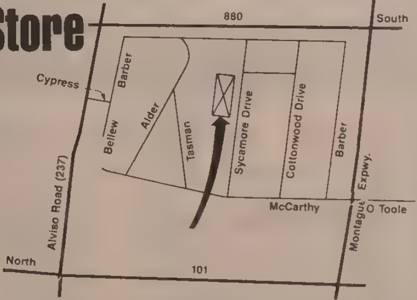

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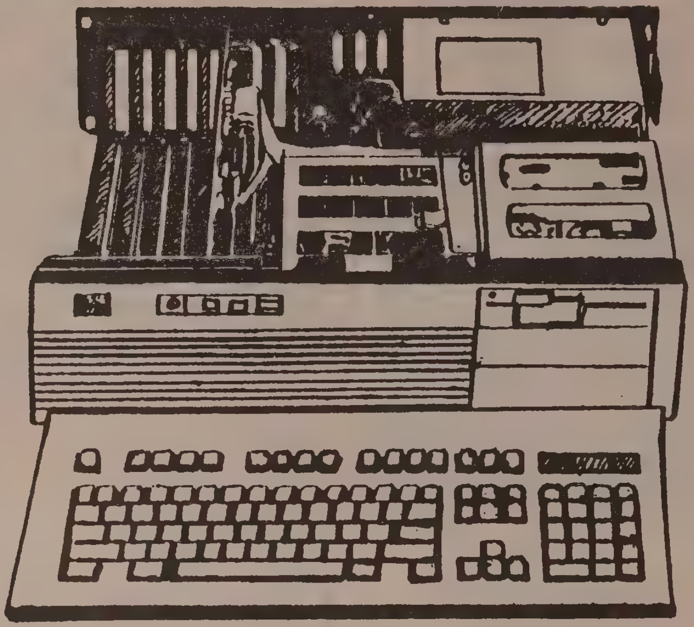

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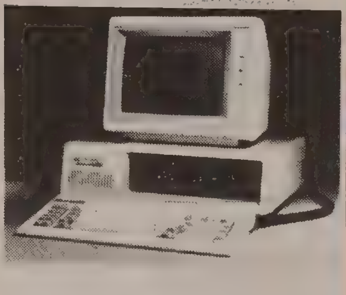

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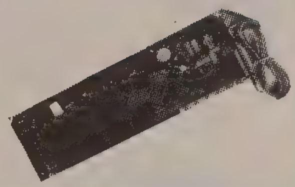

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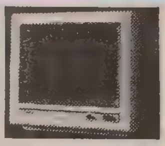

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Prodigy Or Problem Child?

By Brock N. Meeks

If you haven't yet seen Linda Ellerbee, Alvin Toffler or Mets manager Davy Johnson on CNN hawking a new online system called Prodigy, you're missing a classic piece of advertising history. But if you miss the ads, don't miss using the system; it may be the videotex industry's last great hope for pushing online information systems out of the ethernet and into America's living room.

Prodigy is a joint venture between IBM and Sears. It's a tag-team that pulls no punches. Both companies are going after the "upscale" market. "We want to make people's lives easier and more efficient," says Prodigy spokesman Brian Ek. According to Ek, Prodigy's target market consists of those more concerned about how they spend their discretionary time than their discretionary income. "We think that Prodigy will actually give people back some of the time that their day-to-day routines 'steal' from them," Ek says.

Prodigy plans on "stealing back the time" by providing online services that replace "in person" tasks, such as shopping. Using Prodigy, you'll soon be able to order groceries and gifts of all sorts. And when such mundane tasks are accomplished, you can even scan a travel database for the best "last-minute" trips to Tahiti or Paris. Punch in a credit card and take a cab to the airport — everything can be taken care of online, via Prodigy.

Beyond the buying services offered on Prodigy, there are several different news and information services to choose from. Each day Prodigy's news staff monitors the wire services (including some foreign news services)and the full text (such as it is) from *USA Today*, and "rewrites" the stories they find.

These stories are then placed in the news section of Prodigy ready for your perusal. "Why rewrite the news?" you ask. Actually, this is a common practice for all news media. The newspapers often rewrite wire service copy, and a radio station's "news" broadcasts couldn't survive without an editor rewriting the AP copy that continuously streams into the station. These rewrite editors are well trained in the skill of delivering only the essential facts. Prodigy draws its news staff from journeyman newspaper and broadcast journalists.

Prodigy's target market consists of those more concerned about how they spend their discretionary time than their discretionary income.

The news features of Prodigy won't provide you with enough information to finish your dissertation, but you won't be embarrassed at that dinner party because you haven't at least skimmed the day's top headlines. Again, that's Prodigy's whole intent: to provide you with tools to make your life more efficient, more productive. Yes, the news is a bit "light" on in-depth reporting. If you want in-depth reporting, pick up *The New York Times* or the *Washington Post*. Prodigy doesn't pretend to be a full-featured news provider. It's an augmentation to your personal information gathering routine. (Assuming, of course, that you have such a routine. You don't? Well, Prodigy makes it easy for you to start.)

In addition to the "hard news" features, Prodigy has some 40 experts contracted to write daily columns. The experts range from Jane Fonda on health to Howard Cosell on anything to Stewart Alsop on computers. Each column is a minimum of 50 words; however, they often run longer.

I know what you're thinking. How can any substantial information be provided in only 50 words? Answer: it's not easy. But remember, most of these experts write for a living anyway, and are skilled at delivering a lot of information within the cramped confines of a daily newspaper column.

So, what's the verdict on the Prodigy expert's columns? Varied. Some of the political columnists (Novak and Germond) provide salient tidbits of inside political profundity — and, to my surprise, ahead of when it's published in the newspaper. Other columnists are boring and offer nothing more than what appears to be excerpted paragraphs from old columns or books they've written.

One of the more interesting aspects of these expert columns, however, is that you can send any of the experts electronic mail. Prodigy promises that you'll receive "a personal reply within 72 hours." They don't, however, promise that the personal reply will be typed in by the celeb columnist personally. And it's a well-known fact that some columnists are staffing up to handle the message traffic from Prodigy users.

But in the early going (San Francisco happens to be one of three test markets for Prodigy), it appears that columnists are indeed answering their own mail. No big deal, you say? Wrong. The appeal of this "online people magazine," as futurist and SRI technology analyst Tom Mandel calls it, is that you can "talk to the stars." Better yet: they "talk back." Sure it's a bit gimmicky, but there's something inside most people, including myself, that likes the idea of being able to personally correspond with "celebs."

There are many other services on Prodigy: from weather reports to sports to educational games for the kids (and one particularly cutthroat game called CEO that should appeal to any adult who's ever wanted to manage his or her own company in the fast track of corporate mergers and megalomania).

But is Prodigy going to live up to its hype as a great time saver? Is this system really a "prodigy" or a problem child in disguise?

The Prodigy Bug

Problems began to arise when several people in the Bay Area noticed that their subscription packages were long overdue. (Prodigy costs a flat rate of $9.95 a month. That's lower than most cable TV costs.) The packages contain both special log-on software and documentation. The problem, at face value, is rather amusing. An online service, supposedly noted for saving time and increasing the efficiency of one's day to day routine, couldn't even deliver the software in a timely manner.

The problem, as outlined by Prodigy execs, was "demand outstripping supply." I choked on the answer. And for good reason: I was told by

---

Brock Meeks is a San Diego based columnist and journalist. He claims to have been a child prodigy and says he has emotional scars to prove it.

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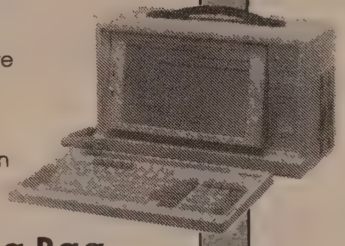

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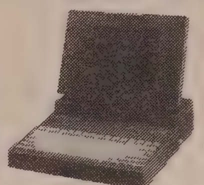

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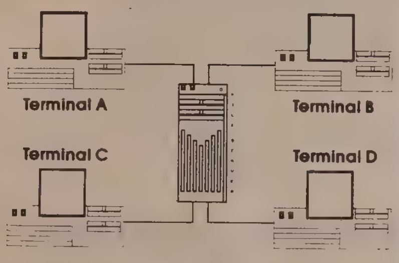

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some Prodigy insiders that the company has simply made a poor business decision and hired a distribution company that couldn't handle the task. The official word at Prodigy is still along the "supply and demand" line. But hasty calls to Prodigy marketing reps yielded quick results. Bay Area Prodigy subscribers suddenly had their software within hours. At very latest, the next day, via UPS delivery.

Then a potential time bomb surfaced. Reports of a horrendous bug in the software started flooding into a conference on the WELL (which, by the way, has such an extensive and technically solid ongoing discussion of Prodigy that several Prodigy execs are logging on to keep up with the news from the field).

The buggy software, as it turns out, goes berserk on a user's hard disk. In the process it writes an eight-megabyte file to disk, in place of a file that normally hovers around 150K.

The news sent shock waves through the new Prodigy community. Some of those hit by the bug cranked up the flame thrower and sprayed it liberally on the WELL's Prodigy topic (in the Telecommunications conference). One wag even speculated that Prodigy had been hit by some insidious virus. (Not true.)

Calls to Prodigy customer support provided some sketchy details."Yes, there was a known bug. No immediate replacement was being issued. Another software release sometime in September...."

September?! Those hit by the bug were livid. But true to its name, Prodigy's execs were already moving to head off a mini user revolt. Setting up three-way conference calls, top-level technical staff from Prodigy began in-depth discussions with those hit by the bug. Taking a page from Christopher Matthew's book on "political hardball," Prodigy "hung a lantern" on their potentially explosive problem. I had full interview access to top Prodigy executives when I wanted to track down the bug story. Later I was on a conference call to Prodigy's top programmer. Beyond just the media's access to top execs, Prodigy told one subscriber that they would have a programmer fly out and personally inspect the damage done to their hard disk. "They really wanted to solve my problem," says SRI's Mandel. "And I got the feeling that they are genuinely concerned about making sure the problem doesn't affect others."

The appeal of this "online people magazine," as futurist and SRI technology analyst Tom Mandel calls it, is that you can "talk to the stars." Better yet: they "talk back."

Les Birney, the programmer in charge of the fixing the bug, tells me that they're ready to start distributing the fix. First up are the ones that have been hit by the bug. "These people will be receiving new software right away," says Birney. From what Birney tells me, that amounts to only eight people — hardly a crisis, but it's indicative of how much attention Prodigy is paying to problems that are cropping up. The September release is "simply a matter of logistics," says Ek. "We have to get thousands and thousands of new disks made. And that takes time." Birney says he was experimenting with the idea of delivering the fix electronically. The next time you'd log on, the system would automatically update your disk with the new software version. "But that's on hold while we make sure all the problems are solved," says Birney.

Jaded computer journalists have harangued Prodigy as too simplistic; some have called it imbecilic. These are writers poured from the same mold as that of their predecessors — those journalists that said the telephone would never be useful. I'm not sure that I would own up to calling Prodigy a "genius," but I will give them "unique."

Yes, there have been other videotex systems before Prodigy. But none with the forethought and dedication of the "people in the trenches." IBM bashing is a favorite pastime for the computer press, but such bashing is ill-founded here. For in this venture, although IBM's stamp may be on the product, none of its "heart" is here. And that may be the biggest stroke of genius of all. ☐

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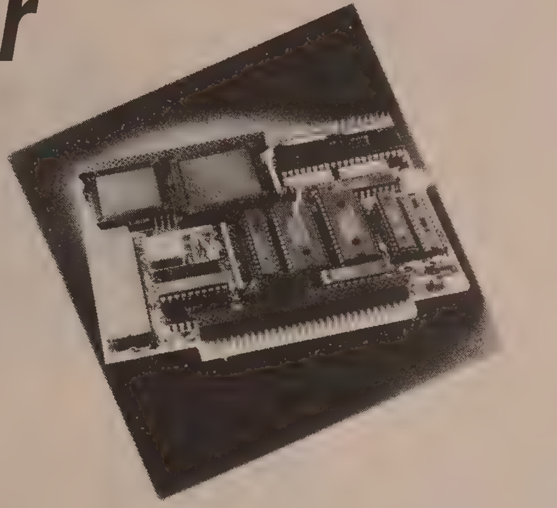

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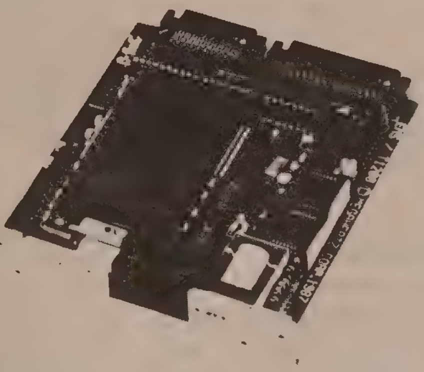

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Professional? A Tale Of Betaware

By David Hawkins

According to an advertisement published earlier this year: "*Publishing Partner Professional*, the new version, is now available..." A number of people read the ad, assumed that Soft Logik, *PPP*'s publisher, was saying that the new version was available, and sent in their money. The ad did list a lot of nice features that people wanted in a desktop publishing program. Some of the features aren't available in *PageMaker* — and evidently aren't available anywhere yet.

The Wait

So some of us started calling Soft Logik and asking where our copy was. Soft Logik said they didn't know when they would be shipping the release version of *Publishing Partner Professional*. Various rumors came out from time to time about a release date, but most of us eventually settled into waiting and waiting and...

And Then!

Why, yes — it's a package in the mail from Soft Logik! And it contains *Publishing Partner Professional*. But there's a letter here that talks about bugs. But there is a promise of a free update when they get the bugs out. Well, let's give it a try, ok?

People used to *Publishing Partner* quickly noticed that there were some features missing in the new version. In *Publishing Partner* it was possible to do everything with pull-down menus, or to use some keystroke combinations to do some things faster. In *Professional*, everything has to be done with pull-down menus.

Those who were used to *Publishing Partner* noticed another problem: they couldn't read their *Publishing Partner* files into *Professional*. The new version didn't produce PostScript files.

It Gets Worse

And the new features? Well, it was hard to tell because trying a number of them crashed the program. The version that was shipped seems to crash even more than the version that was demonstrated at the West Coast Computer Faire.

> **A friend called me up after getting the new release, so I went over to take a look at it. We couldn't get it to print. Personally, I have no use for a desktop publishing program that can't print.**

It Doesn't WHAT?

A friend called me up after getting the new release, so I went over to take a look at it. We couldn't get it to print. (*Publishing Partner* had printed, and *Timeworks Desktop Publisher ST* had printed, but the new version would not print.) Personally, I have no use for a desktop publishing program that can't print.

So, Why Release It?

Why did Soft Logik release a buggy version of *Publishing Partner Professional?* A couple of months ago they asked on GEnie if people who'd already sent in their money would rather receive a beta test version or keep waiting for a final release. There was overwhelming support for seeing the beta version.

However, people who kept calling Soft Logik and asking if *Professional* was released yet were simply told that it was being released and that a copy would be sent to them. They were not told that it was a beta version that was full of bugs.

Actually, they didn't release it to everyone. I didn't get a review copy. I guess they had better sense than to send a buggy beta version to a reviewer. I'm grateful to my friends who let me watch while they tried to run the beta version. And I'm real happy that I didn't take advantage of Soft Logik's special offer to send them $50 before April 1, 1988 for this version.

And the last time I checked, dealers had not received the beta version either. Some of us have all the luck, I guess.

What To Do?

If you want a working desktop publishing program, I'd recommend *Timework's Desktop Publisher ST*, which I reviewed earlier this year. If you really want a program with the list of features that *Publishing Partner Professional* is supposed to have, then wait for a working version to show up at your dealer's store. Your dealer should know when the real release has shown up.

Support Your Local Dealer

From time to time in these columns I recommend checking with your local dealer. There's a couple of reasons I say that. One is that the dealer knows what products are available. Sending off your money for software that doesn't exist is just a waste.

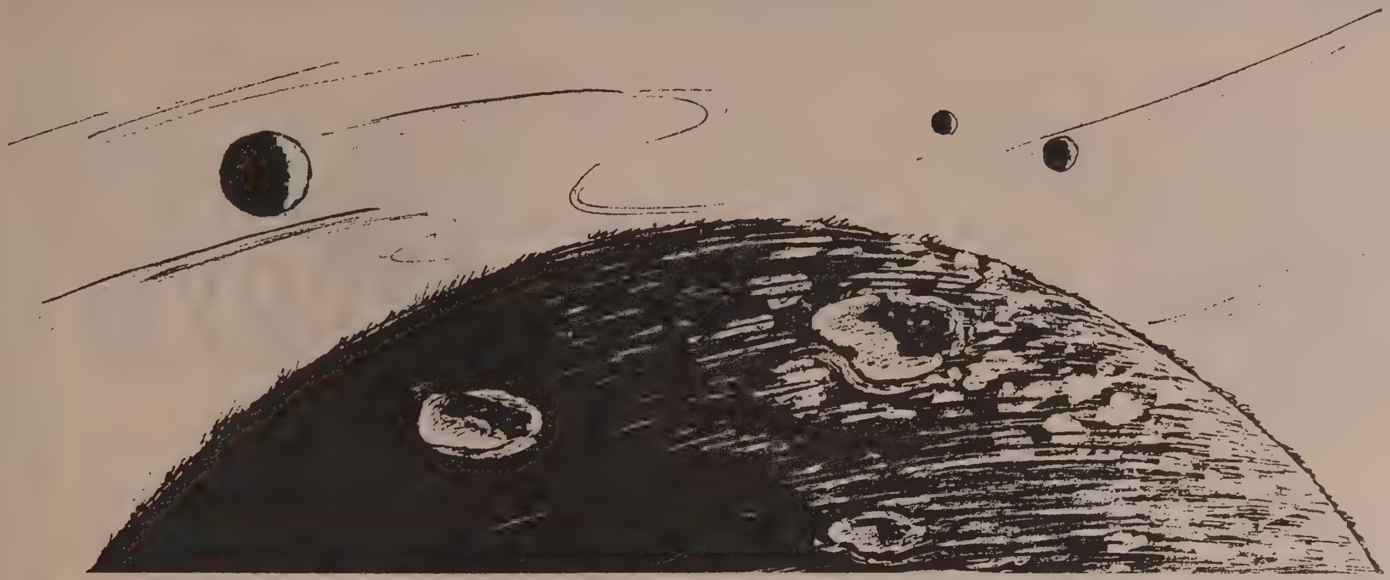
Also, a dealer will know more about a wider range of software packages. I can only cover one or two products a month, whereas a dealer can discuss the details on a number of products. The dealer knows more about the company behind the product: Do they do free upgrades? Have they been releasing bug fixes? Does it look like they'll be around for a while?

Dealers can also find the software that fits *you*. I tend to review what appeals to me, but you might be looking for a particular feature or function that I didn't mention or look for.

Personally, I rely on dealers. I check with them for information, gossip and speculation. I prefer to review products that you can get from a local dealer. And because I rely on dealers — I buy software from them.

While I'm nagging, I might as well go ahead and say, "Don't Pirate Software." The Atari ST is a small part of the computer market and we need to support those developers who are willing to write good software for us. I'm not saying you have to buy bad software; just that when you find a good program, buy your own copy. If you find a very good program, send them a letter! If you want good software, focus on what you can do to make it happen. ☐

Copyright © 1988 by David Hawkins. All rights reserved. David Hawkins is the host of the Atari conference on The WELL (415/332-6106); send email to dhawk. He has one of the first Atari ST 1040s sold in San Francisco, both monitors, an Okimate 20 color printer, and disks all over the room.



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What's Going On At Epyx?

By Matthew Leeds

Apparently there is a closed-off section of the facility at Epyx with security that would rival Fort Knox. When I ask R.J. Mical about it, he claims that Epyx is working on a solar powered flashlight.

Usually all I cover in this column is news and events that relate more or less to the Amiga. But once in a while something catches my attention that just cannot be ignored. And in some ways this particular item of interest does relate to the Amiga.

It started with the hiring of David Morse as Chairman and CEO by Epyx several months back. For those of you who don't know who David Morse is, dig out your early articles on a company known as Amiga when they were first developing a computer known as the Lorraine. Mr. Morse ran Amiga.

Then a press release shows up in the mail from Epyx that says both R.J. Mical and David Needle have been hired to work on a "non-software product." Mical may be best known as the father of Intuition (the Amiga's user interface), or one half of the dancing fools. Morse handled the system design, project coordination and engineering aspects of the manufacturing start-up on the Amiga. After leaving Amiga and before landing at Epyx, he worked at Apple as the principal engineer developing high performance, low cost computers.

This gets me to call friends at Epyx and ask questions. No one will talk. Apparently there is a closed-off section of the facility at Epyx with security that would rival Fort Knox. When I ask R.J. he claims that Epyx is working on a solar powered flashlight.

Then another press release shows up. Now Richard Rice has been hired to head up program management for the Consumer Electronics Division. The what division? Oh yes, Epyx markets a joystick, not just software. That must be their Consumer Electronics. Funny, didn't Amiga start by marketing joysticks? Rice worked for Apple and Amiga also. At Apple he oversaw the first production of Apple IIes and IIcs in Dallas and Singapore, and at Amiga he handled production of A1000s in Japan. The press release says, quote, "Rice will handle all aspects of moving Epyx consumer electronics products from the development stage into production."

Now you don't have to be a rocket scientist to figure out that something big is going on. You don't hire all these high-powered guys just to build a better joystick, or even a solar powered flashlight. There have been other people hired as well, programmers, artists, all top notch.

Now the computer software business is a little strange. It goes in cycles. A few years ago video game cartridges were a glut on the market. Mediagenic (nee Activision) almost went belly up when the market went south. More than one housing subdivision is built on landfill full of ET VCS cartridges. But times have changed, and Nintendo and Sega are making money hand over fist these days using old eight-bit technology. The time is ripe for a sixteen-bit video game cartridge system that takes full advantage of the advances in graphics we have today.

I rarely predict anything. The last time I did I got a nasty letter from someone who didn't like what I had to say. I hope I don't offend anyone this time, but I'd like to take a shot at what's going on at Epyx. I think that they are developing a (ugh, I hate to use the phrase) state-of-the-art video game system. I've been told that they plan on making an announcement at January CES in Las Vegas. I'll keep you posted.

Miscellaneous

As I mentioned above, the computer software business gets strange sometimes. However, it rarely gets as strange as a call I received last month from Jim Cuomo. It seems that Mr. Cuomo is a musician and composer. You may not have heard of him, but the odds are you've heard his music. It seems he's responsible for much of the music on *Defender of the Crown, S.D.I, Sinbad and the Throne of the Falcon, SWAT, Zombie,* and other computer games.

To keep it short, I'll give you a quick quote: "It should be noted that to hear all this music one must not merely own the appropriate computer and game, but must be able to win the game, since some of the best music is reserved for a climatic finale. If one loses, one never hears the ending." Mr. Cuomo has published a CD-Audio disc of his work. "Film soundtrack albums started in the '50s as by-products and now are everywhere. Maybe there will even be a Grammy catalog in a few years," he speculates. If you're interested in a copy, you can send a check for $15.00 to: Pigeon Music, 11684 Ventura Blvd., #520, Studio City, CA 91604.

Contrary to public rumor, Byte by Byte is not leaving the Amiga market. There has been some discussion on the networks and in print that Byte by Byte was going to abandon its Amiga product line in favor of the Macintosh. This was prompted in part by an article that appeared in a Macintosh publication announcing Byte by Byte's plans to produce a version of *Sculpt 3D* for the Mac. I received a call from Scott Peterson, president of Byte by Byte. He wanted me to reassure all owners of Byte by Byte's products that they plan on both continuing to support their current Amiga products and to produce new ones. Another rumor squashed.

Additional rumors have surrounded Aegis. There have been some changes in personnel and some of the original players have left, notably Bill Volk to Mediagenic and John Skeel to Electronic Arts, but the company is still committed to the Amiga. Aegis will be releasing *Lights, Camera, Action,* a desktop presentation package that combines IFF pictures, ANIM animations, Sonix scores and IFF sampled sounds, and Modeler 3D, a three-dimensional object generation application to supplement *VideoScape 3D.*

Just released from Electronic Arts is *DeluxePhotoLab,* a combination paint, print and image processing package. The product consists of three separate modules. The first is a paint program that supports all resolution modes on the Amiga including HAM and halfbrite. Second is an image processing program that can be used to create special effects, convert between resolution modes, manipulate palettes, create color separations and resize images. The third module is a poster printing application. It accepts any IFF image and can print posters up to 10 feet by 10 feet. I've used it and it works very well. It uses the KS/WB 1.3 printer drivers (included) to produce excellent results. I printed a two-foot by three-foot poster from a high-res IFF file on an HP Paintjet printer and it looked great. ☐

Matthew Leeds has been involved in the high tech field since he blew up his bedroom playing with a children's chemistry kit. He has been using Commodore computers since 1982 and has a strong interest in photography, video, graphics and related fields. He currently works for Infinity Software.

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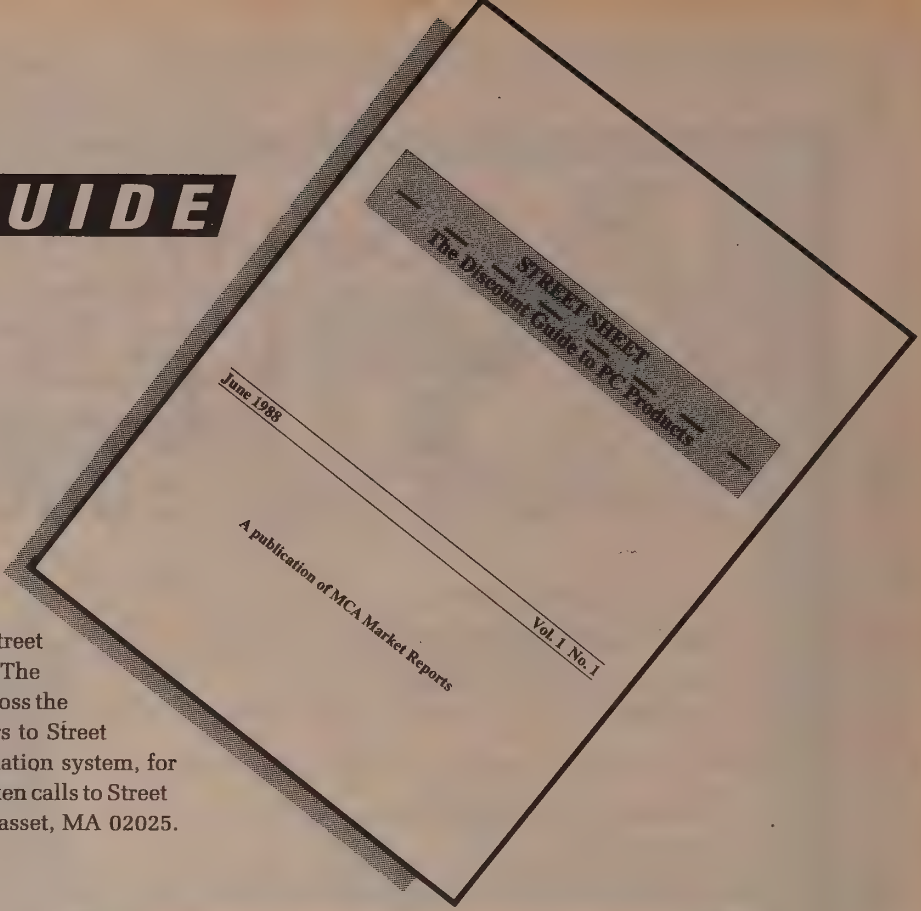
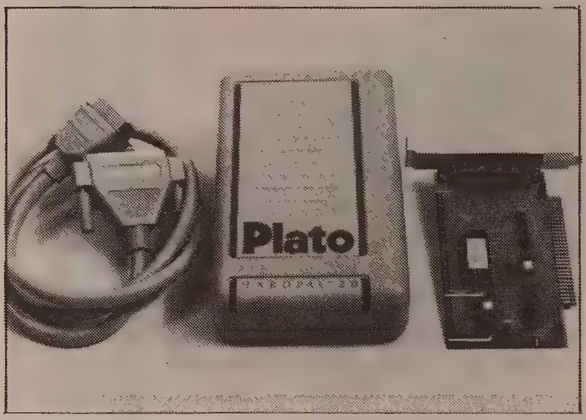

STREET SHEET
The Discount Guide to PC Products
June 1988
A publication of MCA Market Reports
Vol. 1 No. 1

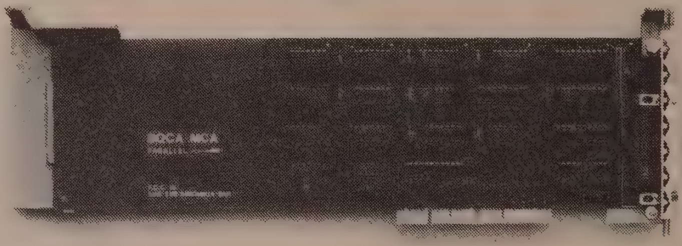
Street Sheet Brings PC Buyers Latest Quotes On Discount Prices

Because prices can vary among discount retailers as much as 30–50%, MCA Market Reports has started publishing Street Sheet, a monthly report comparing the latest prices of the discount PC sales industry. Street Sheet makes comparison shopping for PC hardware less time consuming. The current lowest prices for over 650 products from 50 mail-order dealers across the country are reported in this monthly catalogue. In addition, subscribers to Street Sheet have access to Street Quote, a computerized, voice-based information system, for the very latest up-to-the-minute information. (One year subscription and ten calls to Street Quote: $150.) Street Sheet, MCA Market Reports, 152 King Street, Cohasset, MA 02025. (617) 383-9111.



Aristotle's Plato Portable Hard Disc Makes Transporting Data Easier

The Plato Hardpac 20 from Aristotle Industries and Sunrise Technology is a portable 20 Mb hard drive about the same size as a paperback novel. The Hardpac 20 makes carrying large amounts of data more convenient, and can make storing confidential information an easier task. Compatible with PC, XT, AT, 286 and 386 machines with or without an existing internal hard drive, the Hardpac connects and disconnects in just 2 seconds. Compatibility is achieved by integrating the drive electronics and the drive controller on a single PC board mounted within the Hardpac. An inexpensive host adapter is installed in each computer to be used with the hard drive. The unit uses a 20 Mb 3-1/2" hard drive with an average access time of 65 ms. The Plato Hardpac 20 comes with a 1 year warranty and is offered on a 30 day free trial basis. ($785.) Sunrise Technology Corp., PO 68574, Seattle, WA 98168. 1-800-663-8737.



I/O Micro Channel Board Provides Bi-Directional Parallel Port

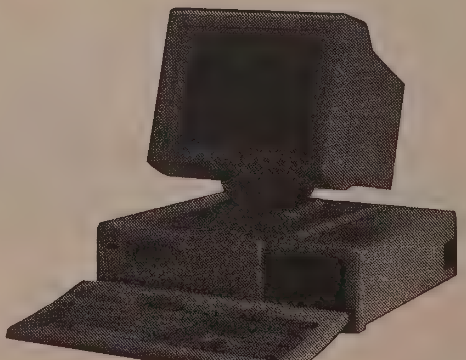
PS/2 users who would like to expand the I/O capabilities of their system can use Boca MCA Parallel. Offering one bi-directional parallel port, MCA Parallel supports the Micro Channel shared interrupt scheme and is configurable at all standard PS/2 addresses. Each 25-pin parallel port is addressable as LPT1 through LPT3. Installation is conducted via the IBM set up program and the .ADF file supplied with the board. ($110.) Boca Research, Inc., Boca Raton, Florida, 33487. (407) 997-6227.

New Spoolers Support Four Users, Up To Three Printers

Two new spoolers from Extended Systems, the ShareSpool and MultiSpool, allow completely transparent use for up to four users. Both work from a Centronics interface and support cable lengths of up to 100 feet. They come with a standard 1Mb memory buffer, expandable to 4Mb. ShareSpool networks up to four users with one printer; MultiSpool networks four users with up to three printers. Both machines are user installable and come with a 2- year warranty. Extended Systems Incorporated, 39899 Balentine, Suite 200, Newark, CA 94560. (415) 651-2862.

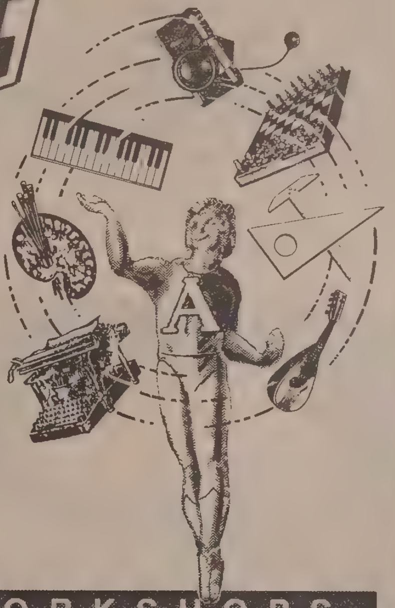
Z-Turbo XT Clone Features Two-speed Circuitry

The Z-Turbo Plus is an XT clone from Z-Technology Systems with a 12MHz CPU manufactured by Sony. Its motherboard features two circuits that operate the I/O bus and CPU/memory at different clock speeds — 4.77MHz for the former and either 4.77 or 12 for the latter. CPU/memory speeds are switchable by hardware or software. The Z-Turbo Plus comes with a high resolution monochrome graphics adapter that is fully Hercules compatible and supports *Windows*, AutoCAD, Lotus and all IBM graphics software. A Key Tronics Enhanced Style keyboard with 12 function keys and a separate keypad and cursor pad is also included. ($689.00.) Z-Technology Systems. 441 Grand Ave. (West), South San Francisco, CA 94080. (415) 588-3386.



COMPUTER SHOWCASE

SAN FRANCISCO'S HEADQUARTERS FOR THE AMIGA ARTS



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Giraffe-X Desktop Publishing (1826 Divisadero St. SF 346-9166)

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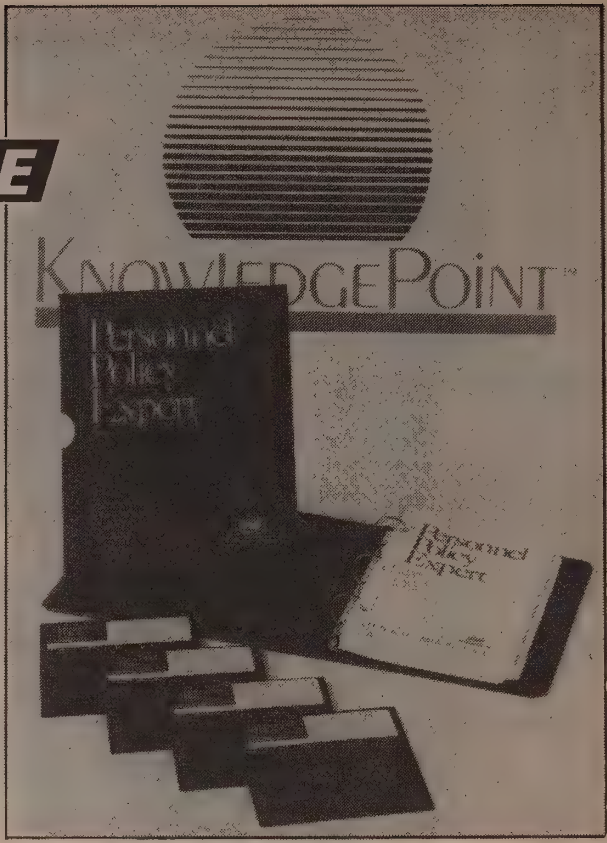

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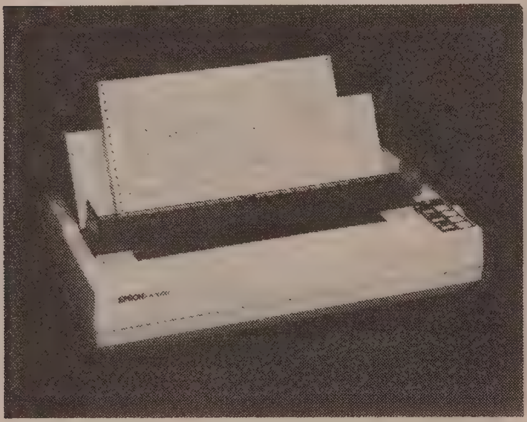

Palantir WinText Provides Full-Featured Word Processing Under Windows

WinText allows the PC user to open up to four documents at once under Microsoft's *Windows*. The application supports cutting and pasting graphics from the Clipboard, different fonts and font sizes, boldface, underline, italics and what-you-see-is-what-you-get. *WinText* requires 512K and a *Windows* compatible IBM or compatible. Palantir Software, 12777 Jones Rd., Suite 100, Houston, TX 77070.

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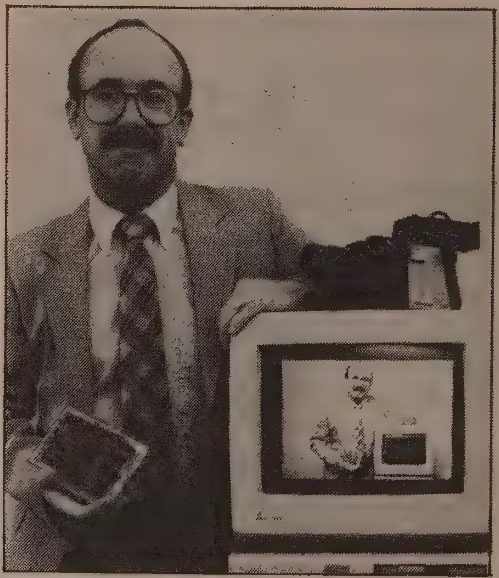
PicturePaks from MGI are libraries of electronic art designed for use with microcomputer based publishing and presentation systems. *The Eye Openers Series* is a collection of 565 pictures in three editions in *WordPerfect*'s own .WPG vector graphics file format. Vector images are difficult and expensive to make, hence they are uncommon. The Executive & Management, Sales & Marketing and Finance & Administration editions of *The Eye Openers Series* are available together and separately. ($250 together, or $99.95 per edition.) Marketing Graphics Incorporated, 4401 Dominion Boulevard, Suite 210, Glen Ellen, VA 23060-3379. (804) 747-0879.



ComputerEyes Video Digitizer Now Supports VGA

The ComputerEyes video digitizer from Digital Vision captures real-world images on computer graphics displays and now supports the VGA standard. ComputerEyes had previously supported only CGA, EGA and Hercules capabilities. This hardware/software device connects the computer to any standard video source such as a camera or VCR, scans the video signal and digitizes images into the computer's graphics memory. For desktop publishing applications, ComputerEyes' images can be saved to disk in a number of formats including PC Paintbrush, .PCX format, TIFF, GEM, .IMG, *Windows* and others. ($130 to $250.) Digital Vision, Inc., 66 Eastern Avenue, Dedham, MA 02026. (617) 329-5400.

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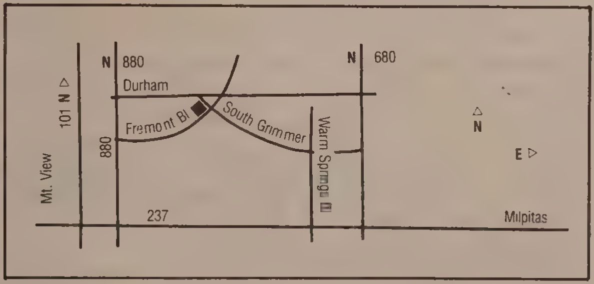

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USER GROUP NETWORK

By Mary Eisenhart

Are you a programmer? Are games your life? Want a fun-filled weekend in beautiful downtown Milpitas? Well, then, this flyer which was thrust into my hands at the Software Entrepreneurs' Forum might be of interest to you.

It's about the **Computer Game Developer's Conference**, which happens on Sunday and Monday, the 18th and 19th of September, at the Holiday Inn in Milpitas. There will be both design- and business/technical sessions on a variety of topics, and some of the industry's best designers will be speaking. Sponsors are **Tim Bringle**, **Chris Crawford**, **Stephen Friedman**, **Jeff Johannigman**, **Brenda Laurel** and **Dave Menconi**.

If you'd like more info, write to The Journal of Computer Game Design, 5251 Sierra Road, San Jose, CA 95132.

Computer Learning Month is coming in October, and this year user groups are being invited to participate as sponsors. The purposes of Computer Learning Month, which is the result of the extensive collaboration of hardware and software vendors and other industry leaders, are to increase public awareness of how computers are used as tools in home, school and workplace, to provide programs for schools, universities and community groups to experience the benefits of technology, to stimulate the innovative use of computers and to promote equal access to computer learning.

In order to become a CLM user group sponsor, the group must agree to distribute CLM information to its members and to host a Computer Learning Month event on October 1, the official kickoff day. User group events are intended to help local people unfamiliar with technology get to know some of the possibilities which computers open up.

Sally Bowman, one of the CLM contacts, says "The CLM and user group partnership is an ideal one because user groups are in constant contact with their local communities and can help distribute to the public the vast amounts of information that CLM has developed." So if this sounds like a worthy cause to you and your group, write to CLM User Group Program, P.O. Box 60967, Palo Alto, CA 94306-0967.

Elsewhere in the Valley, the **Silicon Valley Computer Society**, a multifarious PC group, has a couple of new SIGs some of you might like to check out. The **Microsoft Word Users Group** of SVCS meets on fourth Mondays from 7:30 to 9:30 pm at Hewlett-Packard in Cupertino, in the Oak Room in Building 48. That's on Pruneridge, 100 yards east of Wolfe, off Highway 280. Meetings consist of roundtable discussions of features, bugs, and other favorites, plus presentations by the speaker of the month. The August meeting on the 22nd will feature **Chris Donner** of Access Softek on using *Dragnet* for text retrieval and management. The October 24 meeting will offer a presentation by **Linda Cavenaugh** of Softcraft Inc. on fonts for laser and dot matrix printers. If you'd like more info, call **Bill West** at (408)356-8805.

Another new SVCS SIG is the **Women's Special Interest Group**, which is for all women interested in computing, SVCS members or not. The WSIG will be meeting on August 22 at Hewlett-Packard, 5301 Stevens Creek Boulevard, in Santa Clara. **Susan Brown** of Brown Communications will speak on "How and When to Start Your Own Business," and the meeting starts at 7:30 pm. The meeting is free, and you can call **Rita Zokaei** at (415)574-8225.

Programmers take note: **Badshah Mian** has started the **COBOL and SQL Users Club**, and invites you to call him at (415)337-1787 if you're interested in its activities. And from Fresno, **George Bearden** writes to inform us about the **Central Valley Professional Programmer's Society** and the **Fresno Clipper Users Group**, both of which you can find out about by writing to **Thomas Weil**, 1283 W. Keats, Fresno, CA 93711.

On a somewhat vertically-oriented note, if you work in interactive videodisc and optical disc technology and are interested in getting those nice lucrative government contracts, you might want to have a little talk with **Robert Steel** in Los Angeles. Robert's just started the **Special Interest Group in Government Contracting**, a SIG of the LA chapter of the **International Interactive Communications Society**. Meetings are held periodically in the Los Angeles area and future presentations include treatments of such issues as networking, red tape avoidance, and MIT's Media Lab. Call Robert at (818)363-0272 or (818)709-9658 if you'd like to know more.

Another highly specialized group that's turned up recently is the **ANImated People's User Group**. **Tom Messerschmidt**, who can be reached at (408)226-9225, tells us: "In the spirit of *Max Headroom* and *Hitchhiker's Guide*, we're attempting computer digitization-animation of real-people personalities." The group is located in San Jose.

In Novato, the **GravenStein Apple IIGS Users Group** held its first meeting on June 18th with a small but dedicated group, and is looking forward to great things. Its goals are exploring new and existing applications for the IIGS, generally encouraging use and development of the machine, and taking advantage of the group's numbers to obtain quantity discounts on equipment and material. Meetings will be held on the third Saturday of the month from 10 am to approximately 1 pm, at the Coddingtown Mall in Santa Rosa. For information or directions, you're invited to contact **Aaron Lamar** at (707)938-8479 or **Robert Wolchock** at (415)897-9928.

New BBSes of interest include the **Online Goldmine**, a free-of-charge videotex system which offers classifieds, electronic yellow pages, messaging, trivia, jokes and horoscopes. You'll receive the PRESTEL protocol for graphics on registration; non-registered users receive text-only information. The board operates in San Leandro at 300/1200 baud, 24 hours a day, at (415)352-5087, 7-E-1.

Fantasy/role-playing enthusiasts might want to check out the **Multiversal Trading Company**, (213)438-0039, 8-N-1. It's run by the denizens of Dragon Tree Press for fans of Arduin Grimoires and World of Delos/Amazon Mutual. It's a free board with online ordering service and a catalog for FRP-oriented books and playing aids. Future incarnations of the board will include fanzine features and online fantasy games.

Scuba divers, there's a board for you too. It's **Scuba-Net**, which operates in San Francisco from 8 pm to 9 am at (415)243-9461, 8-N-1. It's dedicated to scuba and free diving, and your host is **Charlie Eng**.

And finally, if you're perplexed with *PageMaker* or vague on *Ventura*, you might want to call the **Desktop Publisher's HelpNet** at (408)730-4521, 1200/2400, 8-N-1. All computers are supported; registration is required, but once you've done that there are many resources available, from clip art files and layout templates to Linotronic service. There's also a voice number, (408)730-0844, if you just can't wait.

That's about it for now—keep those cards, letters, listings and other good stuff coming. Send email to **microx** on The WELL (415/332-6106) and send the US variety to User Group Network, 5951 Canning Street, Oakland, CA 94609.

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203

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Bertha Board. (209) 239-9853. 300/1200/2400 8-N-1 24 hrs. MS-DOS, others. Some emphasis on programming. Up- & downloads. Free. Registration required. Sysop: Kenneth Roach

Silicon Realms. (209) 754-5530. 300/(1200 Soon) 9:30AM to 6:30AM.Formerly Motherload 64. Commodore, PET & Plus/4. Programmers board, Continuing & Short Story boards, FRPG. Sysop: Joe Commodore

The Backdoor BBS.(209), 952-9430, 300/1200/2400, 8-N-1, 24 hrs. MS-DOS oriented board. Lots of software, online chess game, much more. Sysop: Randall Fox.

Bertha Board BBS.(209), 239-9853, 300/1200/2400, 8-N-1, 24 hrs. MS-DOS, others. 95 Mb online. Emphasis on programming. Uploads and downloads. No fee but registration required. Sysop: Kenneth Roach.

Oasis Software Library.(209), 823-2803, 300/1200/2400, 8-N-1, 24 hrs. Shareware and PD for IBMs and compatibles. No fee but registration required. Sysop: Tim Campi.

212

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The Guild. (408) 988-4004. 300/1200/2400 24 hrs. 160 MB online. Hardware SIG's, BBS info, Professional Certification Testing. Sysop: Nat'l BBS Soc. Staff

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SBUG-BBS. (408) 249-8259. 1200 8-N-1 24 hrs. Membership in SBUG (or registration fee req'd.) Sysop: Jim Gonsalves

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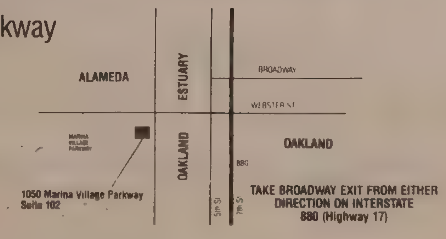

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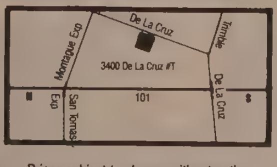

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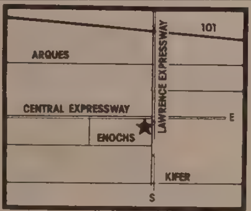

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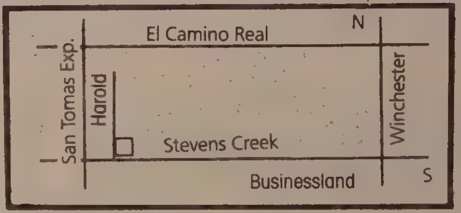

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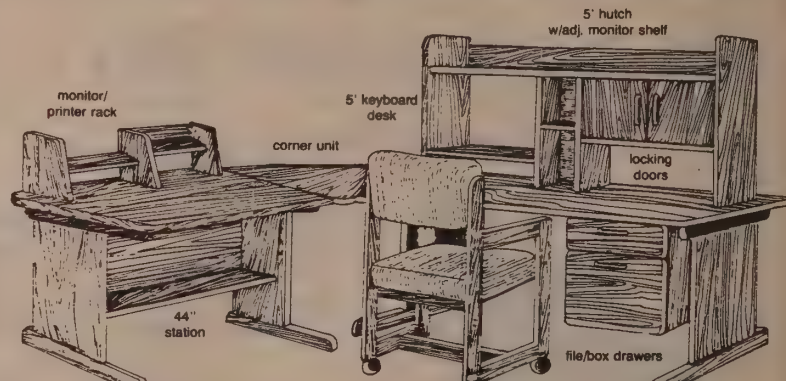

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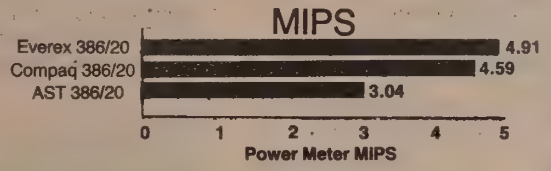

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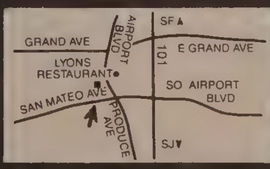

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717

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818

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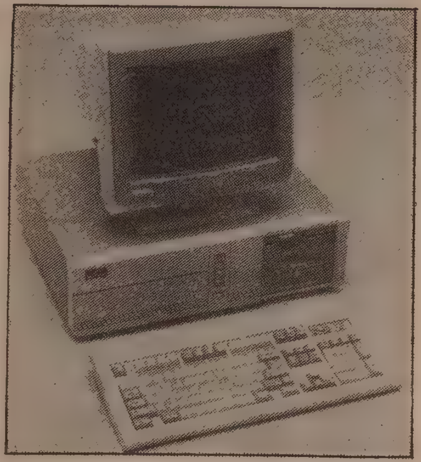

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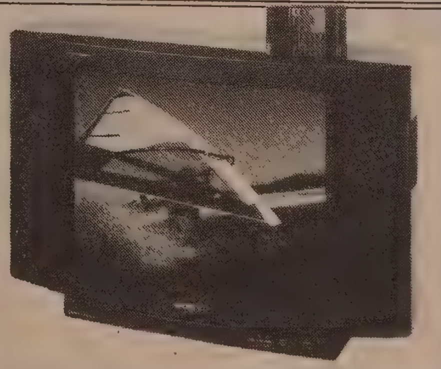

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Lynzie's Motherboard. (818) 508-6482. 300/1200/2400 8-N-1 24 hrs. Multi-interest. Social events for users. If you're looking for a discriminating BBS, this is the place to be. Sysop: Lynzie Flynn

Mysteria. (818) 353-8891. 300/1200/2400. Occult & general text files, CP/M, turbo Pascal. Sysop: Phil Hansford

Oracle. (818) 509-9681. 300/1200/2400 8-N-1 24 hrs. 9 phone lines. System password MICROTIMES for higher access. Free demo version of Oracomm BBS software. Sysop: Gary Young

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Hackney's Hideout BBS. (916) 961-1042. 1200/2400 8-N-1. Includes AT&T users conference. Sysop: Rich Hackney.

Night-line Network Central. (916) 331-5043, 300/1200, 8:00 PM to 8:00 AM daily. Forum for individuals, clubs and organizations that want to network nationally with others. Sysop: Eric Thomas.

ASSOCIATIONS

SF Robotics Society. Meetings: 2nd Mon. Homestead Savings, Community Hall, 5757 Geary (at 22nd), SF. Guest speaker, developers' roundtable.

North Bay Users Group (NBUG). Meetings: 2nd Thurs. 7:30-10 PM 201 Maine St., Vallejo, CA. Family Computer Club dedicated to all forms of computing.Determine market opportunities, group research projects. (415) 564-6669.

PC Publishers of San Francisco. Desktop Publishing. Ventura, PC Pagemaker & others. Call (415) 661-9270.

Silicon Valley Computer Society. Contact Kent Stafford (408) 286-2969. Or write to 2464 El Camino Real #190, Santa Clara, CA 95051.

MIDICRUZ Computer and Music Users. Meetings: 1st Thurs., 7:30 PM, 200 Seventh Ave., Suite 225, Santa Cruz, CA 95062. Contact Robert at (408) 476-8464.

Association for Women in Computing. Meetings: 1st Wednesday of each month, 6:30 PM, Stagecoach Restaurant, 44 Montgomery St., San Francisco. Call 655-3110 for information.

Bay Area Desktop Publishing Users Group. Meetings: each Tues. 7 PM Spats Restaurant, 1974 Shattuck Ave., Berkeley, CA.

California Genealogical Society Computer Interest Group. Meetings: 2nd Sat.- odd months Genealogical Society Library, San Francisco.

Computers & Law Assoc. Meetings: McGeorge School of Law, 3200 Fifth Ave., Sacramento, CA 95817.

Entrepreneurial Support Group. CEO. Meetings: SASE, P.O. Box 2781, San Rafael, CA.

Professional Association Of Secretarial Services (PASS). Meetings: 2nd Sat. Oakland. Group for self-employed word processors. Contact Nina Feldman (415) 655-4296.

The Society For Technical Communication. Meetings: 1st Wed. 7:00 PM Room #3, SMUD Facilities, corner of Elkhorn and Don Julio, Sacramento. Devoted to the advancement of the theory and practice of technical communication.

Software Entrepreneur's Forum (SEF). Meetings: 3rd Thurs. 1875 Embarcadero Rd., Palo Alto. Helps individual software developers and startup software companies. Call for complimentary newsletter. (415) 854-7219.

ProTel (Professionals In Telecommunications. Meetings: Monthly. A network organization bringing together people interested in the world of telecommunications. Call (415) 227-5637.

Artificial Intellegence Special Interest Group. Meetings: 2nd Thurs. Engineering 101,Santa Clara University. Independent nationally recognized group studying and developing AI and artificial neural networks. Call Kent Byron (408) 244-8739 for info.

Bay Area Desktop Publishing User's Group. Meetings: Tues. 6-8 PM Norman's Restaurant, 3204 College Ave., Berkeley (Corner of College and Alcatraz. For more info call Dr. C.J. Wallia at (415) 848-8200.

Business Computerization User Group. Group forming. Write 6938 Buckingham Blvd., Berkeley, CA 94705, or call (415) 848-2080.

Prolog Forum. Meetings: Monthly, 2nd Thursday 7:00 PM, Belmont and various locations. Prolog Forum is a group dedicated to supporting users of the Prolog computer language in artificial intelligence. Call Mark A. Epperson at (415) 594-9981.

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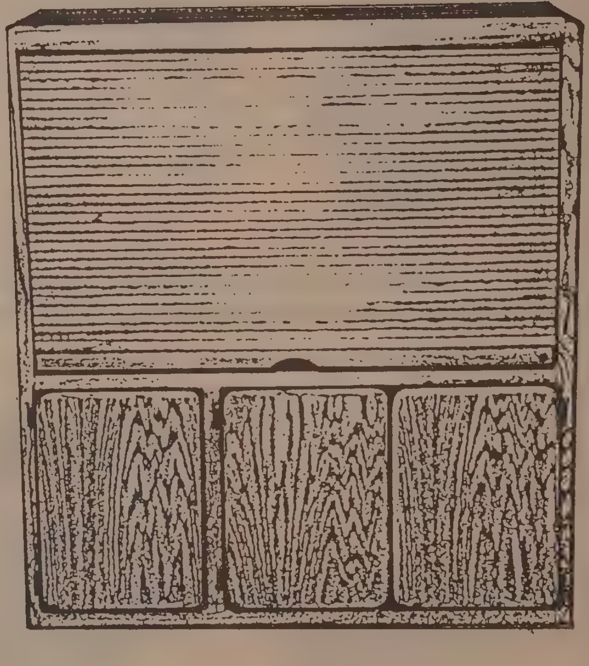

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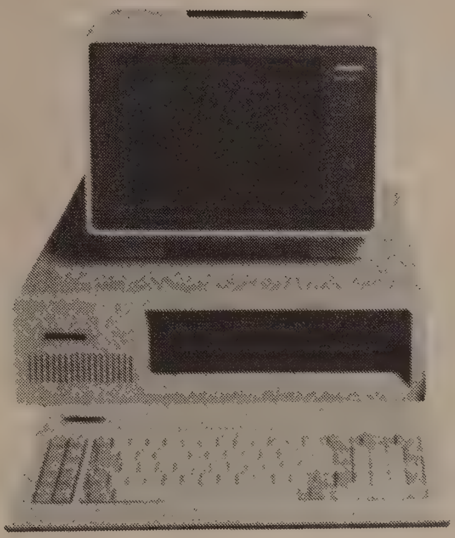

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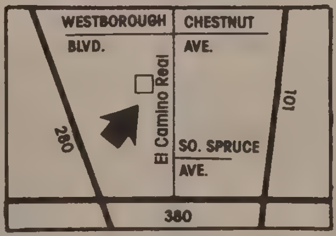

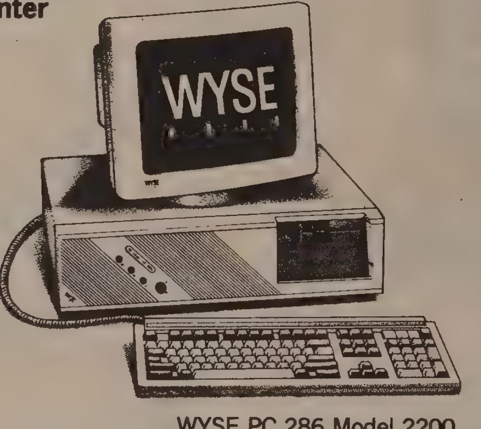

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ProTel. Next meeting: Wednesday, July 6, 6:30 PM Holiday Inn, 1221 Chess Drive, Foster City. ProTel is a network organization for people interested in telecommunications. "Intl. Voice Mail Systems" is July's topic. Leave a message at (415) 227-5637 for information.

SF Robotics Society. Meetings: 2nd Mon., Homestead Savings, Community Hall, 5757 Geary (at 22nd), SF. Guest speaker, developers' roundtable.

Silicon Valley Computer Society. Contact Kent Stafford, (408) 286-2969. Or write to 2464 El Camino Real #190, Santa Clara, CA 95051.

Valley of the Moon Users Group. Meetings: 2nd Saturdays monthly, 10:00 AM, Moose Lodge, Sonoma. All systems welcome. BBS, 300 BAUD, 24 hours, (707) 996-7922.

AI Expert Systems for Business (ESB). Meetings: 1st & 2nd Suns., San Francisco. Business PC expert system solutions. Determine market opportunities, group research projects.

Artificial Intelligence Special Interest Group (AISIG). Call Rita Zokaei, (415) 574-8225.

PC Publishers Of Northern California. Meetings: 2nd Thursdays, 7 PM, 1415 Valencia St., San Francisco Newsletter, telephone hotline, reference library, education. Support Ventura, PC PageMaker, etc. Intro membership: $15/yr.

BAY HPX. Meetings: 2nd Saturday Laptop & handhelds. Call Jim Horn or Michael Felsenstein: (707) 794-3130/(415) 564-8279.

Nota Bene User Group. Meetings: 3rd Tues. or Thurs., 7:30 PM Berkeley or Peninsula. For location and date, call Thomas Ross, (415) 845-2410.

MORE: Modemusers Of The Redwood Empire. Meetings: Thurs. July 14; Fri. Aug. 9; 7 PM, Roundtable Pizza, Highway 12 @ Stony Pt. Free membership for modemers who want to get together and talk about local boards—novices to techno-wizards. Call (707) 546-5203.

Association For Women In Computing. Meeting: Wednesday, July 6, 5:30 PM, Stagecoach Restaurant, 44 Montgomery St., SF. Topic: UNIX. Guests welcome. Call (415) 655-3110.

Network Users Group (NUG). Next meeting: July 7. Call for location and time. Panel discussion of workgroup software with several major software manufacturers represented. Call (415) 655-6500 for details.

ANImated People User's Group In the spirit of Max Headroom and "Hitchhiker's Guide," we're attempting computer digitization/animation of real-people personalities. San Jose. Call: Tom, (408) 226-9225.

Bay Area CYMA Dealers Association Meetings: 2nd Tuesdays, 4:30 - 6:30 PM. 450 Fashion Island Blvd, San Mateo. Call: (415) 839-7466.

COBOL And SQL Users Club Call: Dr. Badshah K. Mian, (415) 337-1787.

Computer Associates Users Group Meetings: 3rd Wednesdays. Gateway Holiday Inn, San Francisco. Call: J.C. Lukrich & Co, (415) 864-6770.

Women's Special Interest Group (WSIG) Meeting: August 22, "How To Start Your Own Business!" 7:30 PM. Hewlett Packard, 5301 Stevens Creek Blvd., Santa Clara. Call: Rita Zokaei at (415) 574-8225.

USER GROUPS

AMIGA

ASCITEC: The Amiga Science & Technology Users Group. Meetings: 2nd Thurs. 5-7 PM Lockheed, B/157, Rm. 4-C, Sunnyvale, CA. Scientific/Video Applications. Classes available.

AUGment - Amiga Users Group of Silicon Valley. Meetings: 2nd Fri. Write to P.O. Box 1863, Fremont CA 94538 for more info.

Bay Area Amiga Developers Group (BADGE). Meetings: 3rd Thurs. 8 PM Turing Auditorium, Stanford University, Stanford, CA. For all Amiga programmers. No membership fee.

Northern California Amiga Club. Meetings: 2nd. Sat. 1:30 PM Business Incubator, 4311 Airport Rd., Redding, CA. $15/yr., monthly newsletter, access to PD disk library, SIG's & support.

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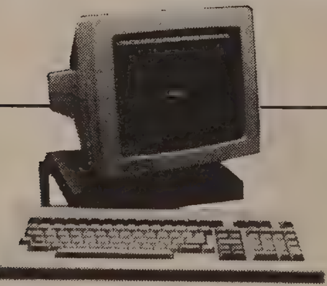

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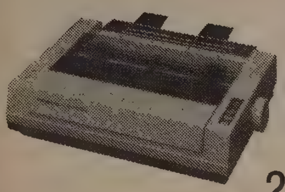

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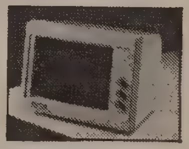

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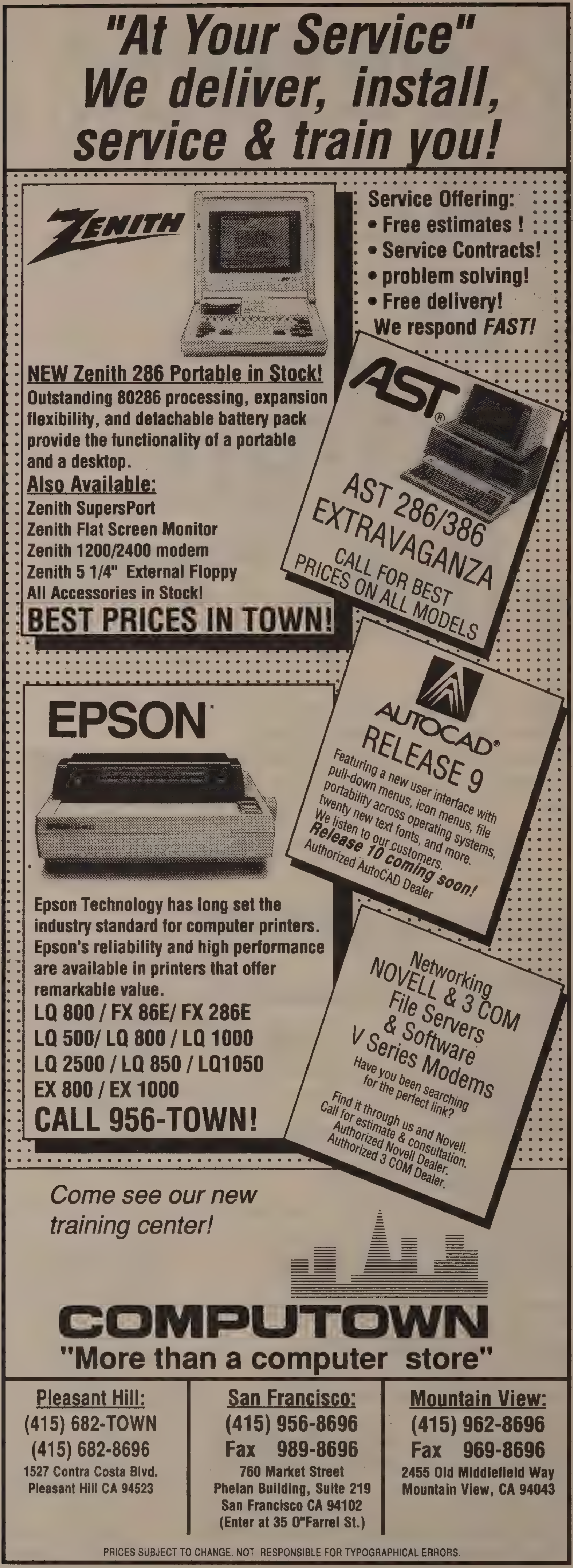

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SMAUG (Salinas-Monterey Amiga Users Group). Meetings: 3rd Tues. at 7 PM, Seaside Library, 550 Harcourt Ave., Seaside, CA. Write PO 776, Castroville, CA 95012 for call Richard Binsacca at (408) 678-2518.

ACCESS (The Amiga And Commodore Computer Enthusiasts Society). Meetings: 3rd Tues. 7:30 PM Community Room of Homestead Savings & Loan, 999 E. Stanley Blvd., Livermore, CA. Contact Ron Kremkow at (415) 449-1784.

Vallejo AMiga People (VAMP). Meetings: 2nd Tues. 6:30 PM Software 1st, Vallejo Corners Shopping Center. Contact Bill Braun at (707) 554-0263.

Amiga East Bay Info Exchange (AEBIE). Meetings: 2nd Tues. 7 to 9 PM 11185 San Pablo Ave., in El Cerrito. Write to P.O. Box 485, Pinole, CA 94564.

CWEST Bay Area Commodore User Group. Meetings: 3rd Thurs. Embarcadero YMCA, between Mission and Howard. Supports C-64/128, Amiga. Write P.O. Box 146731, San Francisco, CA 94114-6731.

SVAUG-Scotts Valley Amiga Users Group. Meetings: 2nd Thursday, 7:00 PM. The Computer Room, Kings Village, Scotts Valley.

Amiga Addicts Anonymous. Meetings: Newsletter, public domain library, demonstrations. Write PO 4669, Walnut Creek, CA 94596. Call: 689-3453

CWEST Bay Area Commodre Users Group. Meetings: Third Thursdays, 7:00 PM, Embarcadero YMCA, between Mission & Howard. Support C-64/128 and Amiga. New Users welcome. Write PO 146731, San Francisco, CA 94114-6731.

AMSTRAD

North American Amstrad Users Group (NAAUG). National User group. For info send S.A.S.E. to NAAUG, P.O. Box 2178, Ferndale, WA 98240.

APL

APL Bay Area Users' Group. Meetings: 2nd Monday, 6:30 PM, I.P. Associates, 425 Sherman Ave., Suite 200, Palo Alto.

APPLE

Apple Pickers of the Redwood Empire. Meetings: 2nd Sat. 10 AM Santa Rosa JC, Shuhaw Hall, Rm. 1735. Call for sample newsletter. (707) 763-8322.

A.P.P.L.E. Co-op. Meetings: National User Group. Call-A.P.P.L.E. Magazine. Write: 290 S.W. 43rd Street, Renton, WA 98055. Or call (206) 251-5222 for more info.

Diablo Valley Apple Users. Meetings: 1st & 3rd Fri. 7 PM Willow Creek Ctr., 1026 Mohr Lane, Concord, CA. SIG's meet monthly. Featuring library of pub. domain software & club's DOM's. Newsletter, demos, group buys hard/software.

San Leandro Apple Eaters Users Group, Apple II Users Group. Meetings: 1st Thurs. San Leandro High School, Rm. 213, San Leandro, CA New owners and experienced users welcome. AppleWorks (TAWUG), software & telecommunications SIG's meet monthly. Newsletter.

B.E.A.R. Apple II National Users Group. Meetings: send S.A.S.E. to B.E.A.R., 4719 Meridean Ave. #401,San Jose 95118. Printshop & Appleworks files, monthly newsletter.

Tri Valley Apple II Users Group. Meetings: 1st Thurs. 6:30 PM. Call Esther Farnstrom at (415) 829-3672 or Dan Balsey at (415) 828-6237 for meeting location.

The Apple Core. Meetings: 3rd. Saturdays. Daly City Library, Serramonte Branch. Call: 771-5830.

GravenStein Apple IIGS Users Group. Meetings: 3rd Saturdays, 10:00 AM, Coddingtown Mall, Santa Rosa. User group to explore new and existing programs and uses for the IIGS, to order equipment and material as a group for quantity discounts and to encourage the use and development of the IIGS among current, new and potential users. Call: Aaron Lamar, president, 938-8479.

ATARI

Bay Area Atari Users Group (BAAUG). Meetings: 1st Mon. 7:00 PM Bracher School, corner of Bowers and Chromite, Santa Clara. ST users meet at Bracher on 2nd Tuesdays. 8-bit users meet at H-P, Wolf and Pruneridge, Cupertino. BBS:

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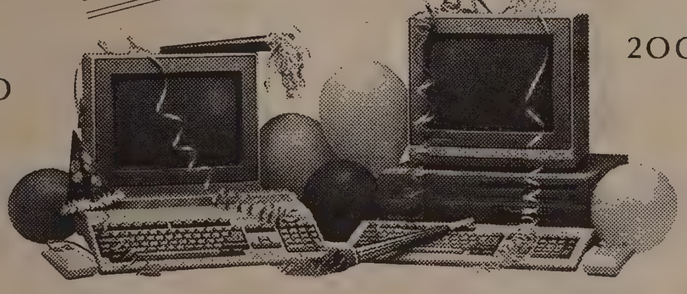

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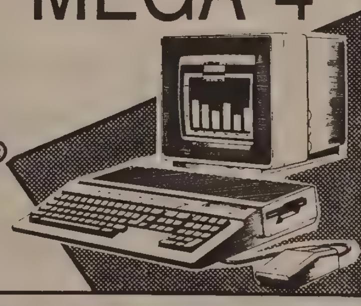

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Bay Area AT&T PC Users Group - South Bay. Meetings: 2nd Wed. 6:30 PM AT&T Bldg., 1090 E. Duane, Sunnyvale, CA. Call: Joe Lipsig (408) 733-6522. BBS: (408) 462-6329.

AUTOCAD

San Francisco/Marin AutoCAD Users Group. Meetings: 2nd Tuesday evenings. $20 annual membership fee & newsletter. For further info, call Volker, 331-9466, or Virginia 777-4025.

Sonoma County AutoCAD Users Group. Call (415) 777-9144 for info.

COMMODORE

Campbell Chapter of 64/More Commodore UG. Meetings: 4th Tues. BBS (408) 946-6154.

Commodore Connection Users Group. BBS (415) 458-1005.

Cupertino Chapter of 64/More Commodore UG. Meetings: 3rd. Sat.BBS (408) 946-6154.

Fairfield Commodore User Group. Meetings: 1st & 3rd Mon. Solano County Education Bldg. Write to P.O. Box 2778, Fairfield, CA 94533-9998 for info.

F.U.N.H.U.G. - Fremont, Union City, Newark, Hayward User Group. Meetings: 3rd Thurs. 7:30 PM Newark Public Library, 6300 Civic Terrace Ave., Newark, CA. A user-organized, user-operated user group not affiliated with any computer or software manufacturer or distributer.

North Valley Chapter of 64/More Commodore UG. Meetings: 2nd. Sat. BBS (408) 946-6154.

PLUG (The Plus/4 Users Group). No regular meetings. Over 800 members internationally. Write to P.O. Box 1001, Monterey, CA 93942 for info.

San Jose Chapter of 64/More Commodore UG. Meetings: 1st. Sun. BBS (408) 946-6154.

Silicon Valley Commodore Club. Meetings: 4th Wed. 7 PM Hewlett-Packard, 5301 Stevens Creek at Lawrence & 280. C-64, C-128, & Amiga.

Commodore 64 Software Users Group For New Commodore Owners. One-on-one help for new owners. Meeting place & time TBA by members. Call (714) 531-2977 for info.

ACCESS (The Amiga And Commodore Computer Enthusiasts Society). Meetings: 3rd Tues. 7:30 PM Community Room of Homestead Savings & Loan, 999 E. Stanley Blvd., Livermore, CA. Contact Ron Kremkow at (415) 449-1784.

CWEST Bay Area Commodore User Group. Meetings: 3rd Thurs. Embarcadero YMCA, between Mission and Howard. Supports C-64/128, Amiga. Write P.O. Box 146731, San Francisco, CA 94114-6731.

Mother Lode Commodore Users Group. Meetings: 2nd & 3rd Thursdays, 7:00 PM, Calaveras County Water District Board Room. Supports the Commodore PET, VIC, 64, Plus/4 C-16 & 128. Call: Larry Anderson, 754-5530.

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dBASE Users Group of Marin & Northbay. Meetings: monthly, call (415) 488-0342 for info. Open membership, beginners through developers.

DATAEASE

Bay Area DataEase Users Group. Meetings alternate between San Francisco and Palo Alto. Contact Kermit Carter at (415) 945-7817 for info.

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Eagle Computer Users Group. Meetings: 2nd Sat. 9:30-12 noon Tandem Computer H.R. Training Rm., N. Tantau Ave., Cupertino.

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Easytrieve Plus Users Group. Next meeting: June 14, Hyatt Oakland. Call Debbie at Pansophic, (415) 573-7100. All users welcome.

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Epson Users of San Francisco Bay Area. Meetings: 1st Thurs. 7-10 PM Fort Mason, Bldg. C, Rm. 216, San Francisco, CA. For users of Epson (QX, Equity, PX-8). Presentations, support network, newsletter, public domain software.

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First Publisher User Group. Members make up 8 1/2 x11 formats for newsletters & tip sheets. $35 annual membership. Contact Raul Ibanez (415) 550- 0785.

FORTH

Forth Interest Group of Silicon Valley. Meetings: 4th Sat. 1 PM Oak Room, at Hewlett Packard, on Pruneridge in Cupertino. Call George Shaw at (415) 276-5953 for info.

Forth Interest Group, North Bay Chapter. Meetings: 2nd Sat. 1 to 5 PM South Berkeley Community Library, corner of Russell and Martin Luther King Junior Way. One block north of Ashby BART station. Contact George Shaw (415) 276-5953.

FOXBASE+

FoxBase+ User Group. PO 20607 Oakland, CA 94620. New group now forming. Call Rachel Cohen, (415) 465-3570.

GAVILAN

Gavilan User Group. Meetings: 2nd Thurs. 7 PM Lockheed Bldg. 162. Cal (408) 379-2774 for info.

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IBM Compatible Users Group. Meetings: monthly, call (415) 969-6916 for info 7-10 PM.

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Marin-Sonoma PC Users Group (MSPCUG). IBM PC software & talk, business application oriented, official electronic voice of one of most influential groups. Call (415) 927-1216.

Sacramento PC User Group. Meetings: For information call Jackie Janssen at (916) 383-6900.

San Francisco PC Users Group. Monthly meetings, "Blue Notes" magazine BBS (415) 621-2609.

Silicon Valley Computer Society. Meetings: 4th Wed. 7:30 PM Oak Room, at Hewlett Packard, on Pruneridge in Cupertino. Call Kent Stafford for info at (408) 286-2969.

Silicon Valley FOG. Meetings: 3rd. Wed. 7:30 PM Saratoga Community Library, 13650 Saratoga Ave.

South Bay AT&T PC UG. Meetings: Call for info. Call (408) 226-0116

South Bay Users Group. Meetings: 2nd Tues. 7:15 Saratoga Library, 13650 Saratoga Ave., STG.

South Bay WordPefect User Group. Meetings: 2nd Thurs. 7 PM Centennial Hall Conven. Ctr., 22292 Foothill Blvd., Hayward, CA. We offer public domain disks, speakers, newsletter.

Valley Computer Club IBM PC Users Group. Meetings: 3rd Wed. 6 PM Xerox Bldg. 475 Oakmead Pky, Sunnyvale, CA. $24/yr member. Monthly VPUG News, access rights to VPUG-SIG Advice on desktop pub. techniques, new products, bugs, etc.

Diablo Valley PC Users Group. Meetings: Walnut Creek, CA. Write: P.O. Box 8040, #117, Walnut Creek, CA 94596.

San Francisco PC Users Group. Meetings: 3rd Monday 8-10 PM, Rm. 1, Bldg. A, Fort Mason Center. Lectures, demos and software sales. New users welcome. Call (415) 221-9166 for recorded info.

San Francisco Computer Society. Meetings: 1st Mon. 7:00 PM. Homestead S&L, 5757 Geary Blvd., San Francisco. MS-DOS machines, Osborne, Kaypro, Morrow. Call Ralph Gallagher 929-0252.

CUE Club. MS-DOS machines. SIGs for other computers. BBS:(209) 239-9853. For more info call (209) 858-4401.

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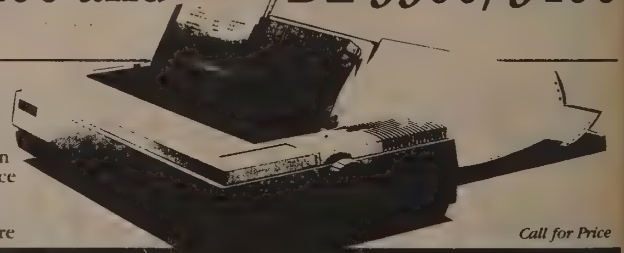

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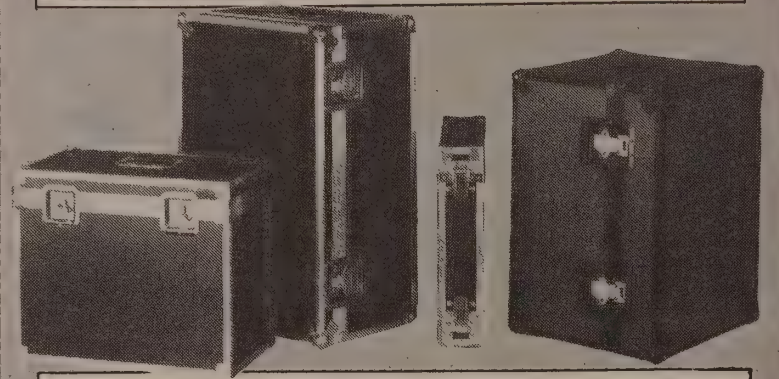

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TRS Nybblers. Meetings: 2nd Friday, 8 PM, Chabot College, 2555 Hesperian Blvd., Rm. 600, Hayward. MS/DOS, CP/M, laptops, CoCo's, Mod 1, 3, 4; Mod 2, 12, 16, 6000. PD software education modules, problem solving committee.

Solano Community PC Users Group. Meetings: 3rd Monday, 7 PM, Fairfield High School.

PC Unix SIG. Meetings: 2nd Monday, 7-9 PM, AT&T Training Center, 1090 E. Duane Ave., Sunnyvale. Talks by UNIX experts, different UNIX versions discussed, library of PD source code.

Mid-Peninsula IBM-Club. For IBM employees only. Call Scott Maiden for info: (415) 855-4509.

East Bay Fog. Meetings: Monthly meetings, Apostleship of the Sea, 600 Terminal St., Oakland. Newsletter, BBS. Call (415) 272-9099 for more info.

Solomon User Group Of Silicon Valley. Meetings: Wednesday, August 10, 6:30 PM, Conveyor And Storage Dynamics, 2581 Leghorn St., Mt. View. Call Grihalva Associates, 39899 Balentine Dr., Suite 175, Newark, CA 94560; (415) 659-1515.

Kay+Fun Peninsula Computer Club. Meetings: 2nd Thursdays, 7:30 PM. Social Room, 222 Laurel St., San Carlos. CP/M + DOS library. BBS: (415) 572-8219.wCall: 593-9981.

PC UNIX SIG. Meetings: 2nd Mondays, 7 PM, AT&T Training Center, 1090 E. Duane Ave., Sunnyvale. Beginners and experts help each other learn more about UNIX versions such as Microport, XENIX and Minix. Call Dan Kionka, (408) 432-1300.

San Francisco PCjr Users Group (SFPCjrUG). Meetings: First Sundays. 7:30 PM, Homestead Savings, 22nd Ave./Geary, San Francisco. Demonstrations and discussions, club library, disks for sale. Call: John King, 472-7035

Santa Cruz Computer Society. Meetings: 3rd Thursdays. 7 PM, Santa Cruz County Office of Education, 809 Bay Avenue, Suite H, Capitola. Call: 479-1180.

KAYPRO

San Francisco Computer Society. Meetings: 1st Monday, 7:00 PM, Homestead S&L, 5757 Geary Blvd., San Francisco CP\M and DOS machines. No BBS. Call Ralph Gallagher, (415) 929-0252 for information.

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MACINTOSH

TI-West Meetings: 2nd Fri. 8 PM Chabot College, Rm. 600, 25555 Hesperian Blvd., Hayward, CA. Access to a variety of pub. domain software, education modules "problem solving" peripheral committee.

Berkeley Macintosh User Group (BMUG). Meetings: every Thurs. 6 PM Physical Sciences Lecture Hall, UC Berkeley Campus. SIG meetings on Mondays, Tuesdays & Wednesdays. Call for this week's topic. (415) 849-9114. BMUG, 1442A Walnut St., #62, Berkeley, CA 94709.

Diablo Valley Apple Users. Meetings: 1st & 3rd Fri. 7 PM Willow Creek Ctr., 1026 Mohr Lane, Concord, CA. SIG's meet monthly. Featuring library of pub. domain software & club's DOM's. Newsletter, demos, group buys hard/software.

MacCruisers — Santa Cruz. Meetings: 2nd Wed. Jade Street Community Ctr. at 45th Ave., Capitola, CA.

MacNexus — Sacramento's Macintosh Users Group. Meetings: 3rd Thurs. 6:30 PM Call (916) 446-2411 for info. 350 members, but still informal. Extensive public domain collection.

Tri-Valley Macintosh Users Group (TMUG). Meetings: 4th Wed. 7 PM 4637 Chabot Dr., Rm. 107, Hacienda Business Park, Pleasanton. Newsletter, large P/D library. Contact James (eves) (415) 462-7536.

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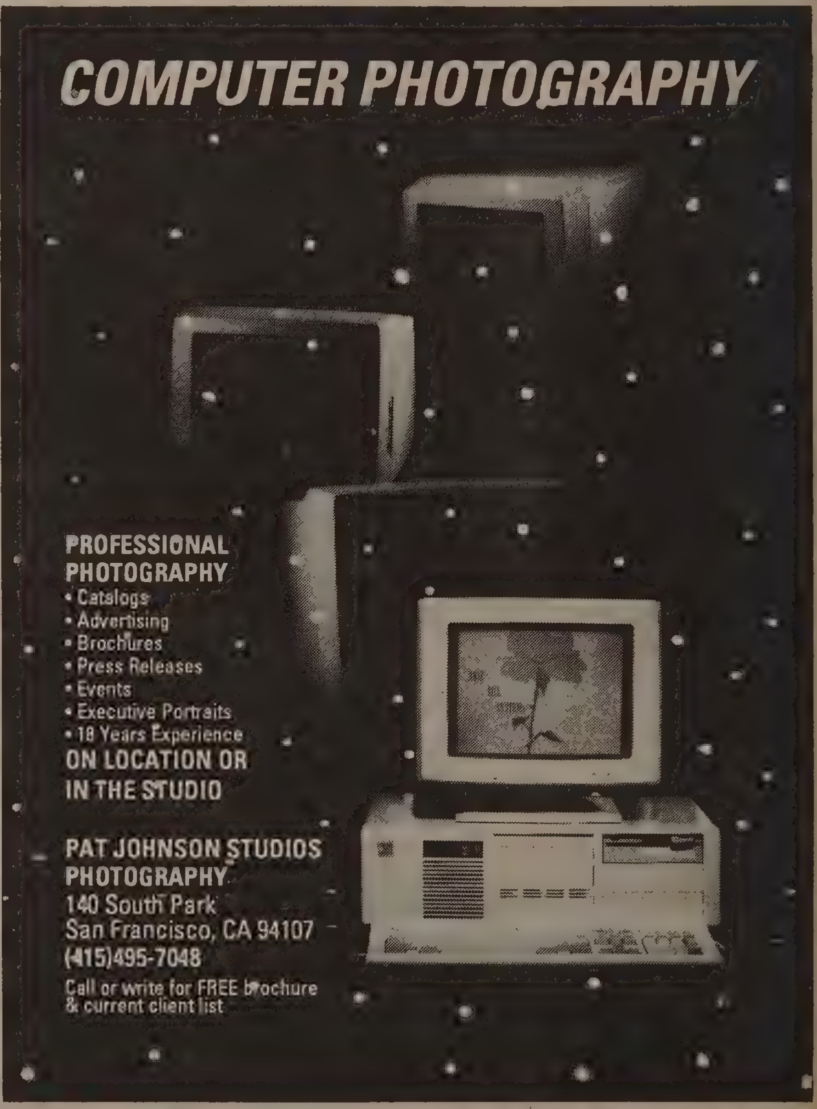

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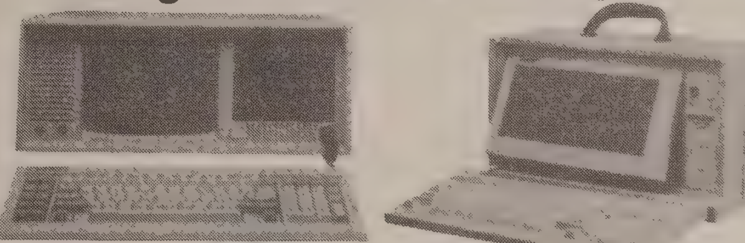

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East Bay Macintosh Users Group (EBMUG). Meetings: 3rd Tues. West Berkeley Library, 1125 University Ave., Berkeley. Members recieve free PD software. Bring blank disk. Write: P.O Box 7816 Berkeley, CA 94707-0816.

Mac Diablo Users Group (MDUG). Meetings: 3rd Tues., Community Room, Glendale Federal Savings, 3101 Crow Canyon Road, San Ramon.

The Bay Area MacForum. Meetings: 3rd Saturdays. Daly City Library, Serramonte Branch. Call: 771-5830.

MICROSOFT

Mirosoft Word SIG of the SVCS. Meetings: 4th Mon. 7:30 PM Hewlett—Packard, Oak Room, Pruneridge at Wolfe, Cupertino. Contact Bill West (408) 356-8805 or Hunter Jackson (4080 446- 4097.

Mac Diablo Users Group (MDUG). Meetings: 3rd Tuesday, 7:30 PM, Community Room, Glendale Federal Savings, 3101 E. Crow Canyon Rd., San Ramon. Small, helpful group.

Microsoft Word Users Group. Meetings: 4th Mondays, 7:30 PM - 9:30 PM, Hewlett Packard-Cupertino-Oak Room Bldg., 48 Pruneridge, 100 yds. est of Wolfe off Hwy 280. August 22: Chris Donner, Pres. Access Softek on DRAGNET for Text Retrieval and Management. Call: Bill West, 356-8805.

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San Francisco Computer Society. Meetings: 1st Mon. 7:00 PM. Homestead S&L, 5757 Geary Blvd., San Francisco. MS-DOS machines, Osborne, Kaypro, Morrow. Call Ralph Gallagher 929-0252.

NEC

Bay Area NEC/100 Users Group. Meetings: 1st and 3rd Thur. 7:30 PM Room 209C at College of Alameda. For those interested in laptops, especially Kyocera 80C85 type (NEC 8201a, Radio Shack Model 100 or 102. Call (415) 658-1889.

NOVELL

Novell Users Group - Silicon Valley. Meetings: 3rd. Wed. 7 PM 1170 Morse Ave., Sunnyvale, CA.

ORACLE

Northern California Oracle UG. Meetings: Call (408) 738- 8330 for info. meets every 3 months at different Bay Area locations. Newsletter published between meetings.

OSBORNE

San Francisco Computer Society. Meetings: 1st Monday, 7:00 PM, Homestead S&L, 5757 Geary Blvd., San Francisco. CP\M and DOS machines. No BBS. Call Ralph Gallagher, (415) 929-0252 for information.

PARADOX

San Francisco Paradox Users Group. Meetings: 3rd Wednesday, call Jeffrey Edwards Co. for information, (415) 543-6227.

San Francisco Paradox Users Group, South Bay Chapter. Meetings: 3rd Tuesday, call Jeffrey Edwards Co. for information, (415) 543-6227.

TANDY/RADIO SHACK

Tandy 1000 (The Mug). Mail-based user group w/ monthly newsletter. Not for PC jrs. Members communicate through newsletter. $8/yr. fee; checks to: Daniel Tuma, 30 Arjang Ct., Alamo, CA 94507-2041.

BYTE Bandits of America. Meetings: Campbell. Call (408) 379-2774 for info.

Model 100, 102 & 200 Support. Meetings: Int'l support by mail, voice & BBS. Free on-line weekly news letter. Write Club 100 984 Hawthorne Dr., Walnut Creek, CA 94596. Call (415) 937-5039.

TRS Nybblers. Meetings: 2nd Fri. 8 PM Chabot College, 25555 Hesperian Blvd., Hayward. MS-DOS, CP/M, laptops, Mod 1, 3, 4, Mod 2, 12, 16, 6000. Bud Gallagher (415) 522-5960 or Bruce Jarvis (415) 846-3575.

REVELATION

Bay Area Revelation UG. Meetings: 1st Tues. Call (415) 759-1210.

SANYO

Sanyo PC Hackers. Meetings: 1st Wed. 7 PM Mercury Room, Mercury Savings & Loan, 99 El Camino Real, Menlo Park.

SOLOMON

Solomon User Group of Silicon Valley. Meetings: For info contact Grihalva Associates, 39899 Balentine Dr., Suite 175, Newark CA 94560.

San Francisco Solomon III Users Group. Meetings: last Wed.,odd months 6-9 PM Price Waterhouse, 555 California St. 36th Fl., San Francisco. Annual membership - $50; corp. membership - $75.

S—100

S-100 Business Users Group. Meetings: 4th Tues. 7:30 PM Santa Clara Univ., #101, Bannan Engineering Bldg. CP/M & MS-DOS libraries. BBS: (408) 262-5150, 8-N-1,2400/1200/300.

TEXAS INSTRUMENTS

Brea 99'ers Users Group. Meetings: 1st Mon. 7:30 PM Mercury Savings, La Habra, CA.

Thousand Oaks Personal Computer Club (TOPCC). Meetings: monthly. Call: (714) 686-0336.

TIMEX/SINCLAIR

Timex/Sinclair Users of Silicon Valley (GUTS/SV). Meetings: Sat. 9 AM Stanford Univ., Jordan Hall (quadrangle), Math Bldg. RM 380C. SW library & newsletter. For topic check PDSE BBS in Sunnyvale (408) 735-7390, 300/1200, 8-N-1, 24 hrs.

Timex Sinclair East Bay Z80 Users Group (TSEBZUG). John Ezike, (415) 843-5507.

Timex Sinclair Peninsula Users Group (TSPUG). Contact George Mockridge, (408) 878-1773.

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VPUG (Ventura Publisher User Group). Meetings: 3rd. Mon. 6:30 PM Fort Mason, Bldg. A., Rm. 5 San Francisco, CA.

Ventura Desktop Publishing Users Group. Meetings: 1st Tuesday, 7-9:00 PM, 1650 S. Amphlett Blvd., San Mateo. Newly formed group. Call Eleanor Church at (415) 726-3181, or Pam Sheble att 415) 574-2003 for information.

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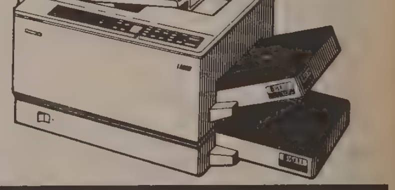

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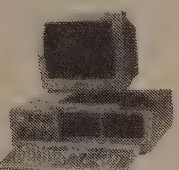

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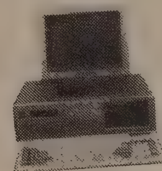

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continued from page 60

> ‘While the DOS world is facing a jump to either OS/2 or UNIX, the Mac challenge is to evolve a similar sort of environment while at the same time keeping what the user and the program see unchanged.’

are too many varieties of UNIX. There has not been a single consistent UNIX environment with a single user interface.”

The fact that UNIX is large and is excruciatingly difficult to deal with is unimportant, he says. Large won't matter as computers get more powerful, and difficult will be moot once the user interface is in place. The only hurdle that UNIX faces in giving OS/2 a run for its money is the ability to attract mass market shrink-wrap software. And according to Seybold, the jury is still out on UNIX — particularly as people realize the problems with OS/2.

Seybold feels that Microsoft and IBM made an unwise decision to make a 286 version of OS/2, essentially crippling the system when it was run on a 386. Part of the problem may have stemmed from an underestimation of how rapidly the 386 would catch on. Even IBM has jumped on the bandwagon, indicating that it's going to have an all-386 line in 1989. But that's not all that's wrong with OS/2. What Seybold finds more offensive is the manner in which the system handles its abandoned sibling, DOS.

“I think they made a mistake in trying to maintain too much DOS compatibility,” says Seybold. “With a Sun 386i computer running on UNIX, and with their Open Look environment, you can open up a window and run a DOS program. It gives you a nice environment for doing that. If I think about what I'd want in a transition to a new machine, that's what I'd like to do. I'd like to have the 386 machine and a new operating environment, but I'd still like to be able to run my old DOS programs in windows — at least until I've got a library of new stuff that makes the old software irrelevant. That doesn't require being as compatible with DOS as OS/2 is going to be.”

Hardware, Software And The Laser Catalyst

Of course in desktop publishing, DOS is simply one side of the coin. If you were to sit down now and decide on what machine to buy for DTP, there's only one choice really, says Seybold: the Macintosh. The user interface is in place, the network solution is finished and the memory limitations of DOS are nonexistent.

About the only thing that the Mac lacks is a program like *Ventura Publisher*. And considering the ten million DOS machines in existence, it's easy to see why *Ventura* is so hot. It also runs on a wide variety of machines, unlike *PageMaker* 3.0 (which won't run on a standard DOS machine on a network — a serious limitation in the shared data world of publishing).

But the software is only part of the puzzle. If Seybold had to choose one development that paved the way for the DTP revolution, it would clearly be the laser printer.

“The catalyst, without a doubt, was the LaserWriter,” he says forcefully. “That brought typographic-appearing output to the mass market. You had the Mac and it was important, but it was the LaserWriter that really opened the flood gates. When I first saw the LaserWriter, well before its official release, my reaction was ‘This turns the world upside down!’ It was so obvious how important it was.

“After that came the Aldus *PageMaker* software, which does paste-up like design. It was never appropriate for doing every kind of document, but the reason it was so important was that it was good enough from the start that you could do some class of professional product. From the standpoint of precision, high quality and accuracy, you could produce documents that any professional would be proud of — even from the beginning.”

There was more to *PageMaker* than simply doing a good job. It effected a change in the attitude of dealers, says Seybold.

“When it came out, people were saying dealers were dead, everything was going to go via discount channels for selling hardware,” recalls Seybold. “People said the only way we're going to sell software is through VARS — vertical market VARS, sell to doctors or lawyers.

“When the Aldus came out on the Mac, it was sold through retail dealers, and because they didn't have much choice in the matter they turned a portion of their dealers into VAR dealers by teaching them how to sell and support an application solution. And the dealers learned in the process that they weren't just selling a $500 software package — they were also selling $10,000 worth of hardware to go along with it. Like *VisiCalc* and *1-2-3* before it, *PageMaker* was the kind of application program that sold hardware. People would walk in and buy a computer to run that program.

“Prior to that, people thought publishing applications were too complex to be sold through mass market channels and had to be sold by specialized sales/service organizations. And if you had sold *PageMaker* through a dedicated sales force, it would have sold for $10,000 or $15,000, not $500.”

> ‘If you look at where we have to go—an environment that is multi-tasking, multi-user, networking and heterogeneous, there is already an operating system that is what OS/2 wants to be, and that's UNIX’

Beyond Desktop Publishing

At the final analysis, even Seybold admits that not everyone needs desktop publishing ability. While he believes the trend towards across-the-board upgrading of data is inevitable, right now he couldn't justify a user whose output is mainly letters or memos going out to totally outfit himself with the latest whiz-bang technology. But once someone does start using DTP for other things, the tendency is to also use it for less important communication.

“And once you move beyond letters and memos to reports, proposals, any document where you're trying to convince somebody or something or sell them something, then you very quickly realize how effective it is to have a ‘typographic’ appearance.”

Indeed, the move of DTP into the computing mainstream has prompted two changes for the Seybold Desktop Publishing Seminar. Due to the demand for space, they're moving next year's show to the much larger Moscone Center in San Francisco. And they're also dropping the word Desktop out of the name.

“What's happening is that the distinction between desktop publishing and the mainstream computer industry is becoming less and less defined, just as are the distinctions between desktop publishing and the ‘professional’ publishing world,” he says. “That's the major theme this year. It's all coming together and [at the Santa Clara show] what you're going to see is the extent to which the computer industry and the publishing industry are becoming intertwined.

“There was an assumption on some people's part that desktop publishing would be this year's fad. My feeling is that was a very shortsighted assumption. We really are at the Model-T phase. There's so much further to go, so much more to do, so much more market potential that hasn't been touched yet. This is something that is far from having peaked.” ☐

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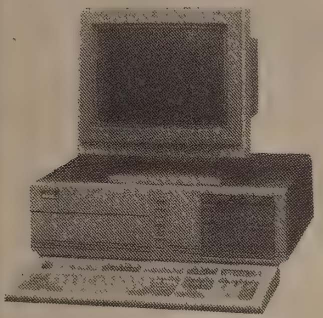

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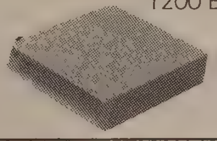

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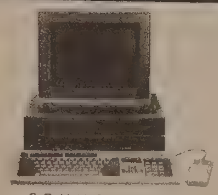

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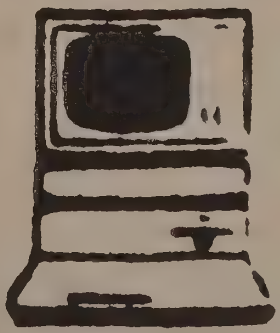

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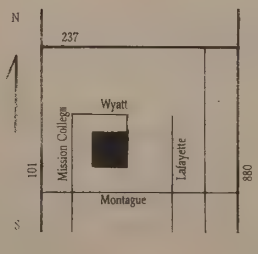

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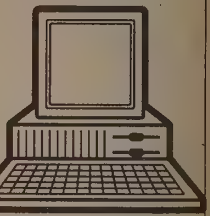

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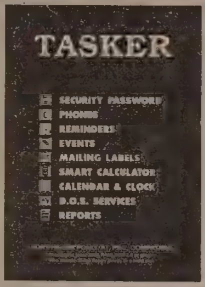

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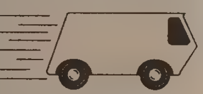

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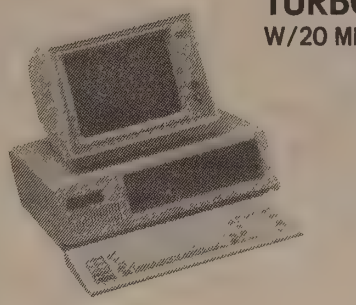

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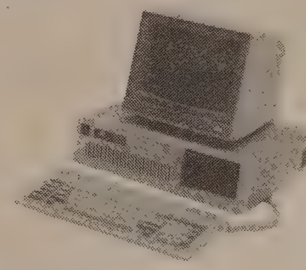

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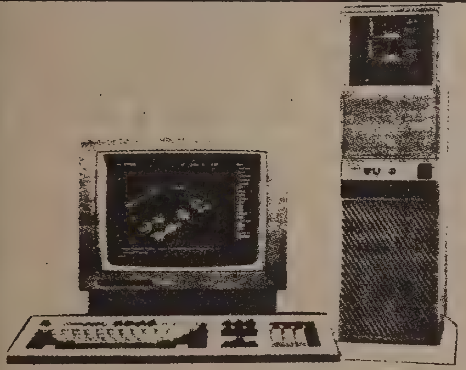

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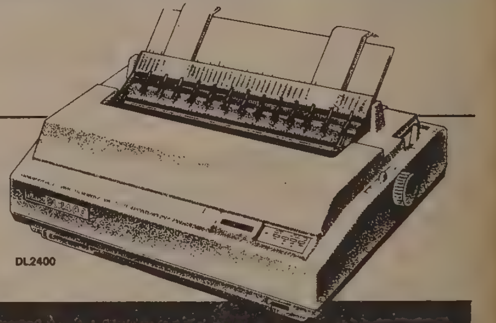

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DVORAK'S LAST COLUMN

The Not So Poisonous Pen Letter or, Loose Lips Sink Chips

Then Again, What's The Point Of Keeping A Secret If Everybody Already Knows — A Lesson For Apple

By John C. Dvorak

It came in the mail. There was no return address and no letter attached. Inside: a Mac disk. The postmark is unreadable. Suspecting a virus, I secure my system as best I can and boot the disk, which contains two *Excel* Spreadsheets and a *MacWrite* Memo.

The memo says:

The "Project by Team" contains the complete list of Apple plans on releasing (sic) for the next year or so. This Excel spreadsheet contains Apple II, Mac, A/UX, as well as the latest 68030 and flat panel specifications. The spreadsheet contains Beta and Final release dates as well as the names of their engineering leaders. The "Puff Bill of Materials" contains the exact breakdown of the new system 68030 system so you will know exactly its sound, ROM, and other features. I have sent you this information slightly ahead of the others. Go for it. If you are good I will send you more. Tell me what you want in your column.

Signed: from a person who wants Microsoft to win the lawsuit.

When the spreadsheets are put up on *Excel* (after waiting an eternity for them to load) one sees some interesting code words and NO INFORMATION. Who are you kidding, pal! Look for the Gyro — an Apple II GS+ (yawn) next February. Then there's Tron next January. Who knows what that might be? In 1991 we can expect Jupiter. Yeah, sure. Most of the listing is concerned with details about ongoing Apple IIGS stuff. B-O-R-I-N-G.

> **The fact is, if Apple didn't have a 68030 machine in the wings, someone would have to fire Sculley. So none of this is a surprise.**

We do see that these projects are divided into two "groups." Software and CPU. All the interesting projects are being handled by J. Friedman. Other than that it's all raw information that needs explanation. This all appears to be an internal document done by an engineer high on *Excel*.

The "Puff" project is obviously the 68030 Mac II/III or possibly a fraud — a "puff" as it were. Whatever the case, the thing is incomplete. We do see the 16 MHz 68030 listed, various connectors and lots of custom chips. Note that the Foley sound chip was mentioned.

The parts list would be of value to anyone making a Mac clone, which is nobody as far as I can tell. I'm sure someone might find it of interest, but not the public. In other words, the whole thing is useless except to tell us that Apple has a 68030 machine in the wings. The fact is, if Apple *didn't* have a 68030 machine in the wings, someone would have to fire Sculley. So none of this is a surprise. In fact, it's a bore. I expect it sets a trend. Apple will be very predictable as time goes on. Boring, too.

So to my friend who wants to see Microsoft win the lawsuit: next time send me those juicy memos about office politicos doing nasty things. The hardware side is too obvious.

Nowhere on either spreadsheet did I see mention of half a dozen interesting products. Story time. I recently called Apple to borrow a modem for my Mac II. Because of the wacky world of connectors I couldn't find a combination that would work with the little Mac round connectors and a db-25. I tried a million combinations. There's always some pin reversed or wrong male-female match up. I gave up on it and decided to go with brand name equipment. I think it was Keri Walker who insisted that I try the FAX modem. I declined and requested the regular plain vanilla modem. I got the FAX modem anyway. I STILL NEED THE PLAIN MODEM EVEN WITH THE FAX MODEM! A message to Apple!

Anyway, the FAX modem is great. Apple has made a super little software/hardware combination that makes sending and receiving documents via FAX machine to and from the Mac effortless. Very nice implementation.

I've always avoided FAX machines and the world of FAX because it was a clunky old technology a decade ago. Dying, as I recall. I figured that email would surely kill it. Suddenly it's the "in" thing. Meanwhile, email struggles. I still can't understand why everybody doesn't get an MCI Mail account if they're in this business. It's especially valuable for large businesses where people have to check their memos frequently. It's the messaging system for all the Ziff-Davis publications, for example. It's used extensively by IBM, GM and others. It's hot.

> **Meanwhile FAX is in. Sheesh. I suppose that if one has to accept the fact that it will be necessary to have FAX capability (as seems the case), then this is the way to do it — on a Mac.**

What I like about MCI Mail is that I can write an article for someone who doesn't get MCI and use an overnight hand delivered mode whereby MCI prints out the document on a laser and delivers it through one of the overnight services for $8 or so. Great way to get a manuscript to someone without dabbling in hard copy.

Meanwhile FAX is in. Sheesh. I suppose that if one has to accept the fact that it will be necessary to have FAX capability (as seems the case), then this is the way to do it — on a Mac.

Getting back to the point, there was no mention of this nifty product on the spreadsheets, making me think that this Microsoft fan is just some sort of production-engineering techie-type who garnered some limited information and passed it along. I think *Mac Week* and anyone else who would listen got copies.

Perhaps the next time someone has a hot tip they should take some advice from me. 1) Keep it exclusive and JUST give it to me! 2) Maybe next time you can FAX it over! ☐

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Software Digest — Rated **OVERALL BEST** of the 10 desktop organizers tested in its June 1986 issue of the **SOFTWARE DIGEST RATINGS NEWSLETTER.**

PC Magazine — David Oberegon — ". . . it's a **staggering range of functions** . . . the Pop-Ups offer more functionality than [Sidekick] . . . with less memory penalty."

PC World on compatibility — Model of how RAM resident programs should be "**well behaved**."

InfoWorld — "Popular Programs has taken the Sidekick™ idea a step further."

Computer Buyer's Guide & Handbook — "the Popular Programs programs are **superior in every way**, . . . DeskSet Plus rates the highest of marks."

PC Magazine — D. Barnes & S. Venit — "Our **number one choice** among the packages we reviewed is Pop-Up DeskSet, for the strength of its integration with DOS and for its speed. We were impressed with the program's ability to let us transfer data from the **Pop-Up DeskSet Plus** modules into our spreadsheet and word processing packages with a single, simple command, and it's straight-forward and easy to use and install, to boot."

PC MAGAZINE EDITOR'S CHOICE

Computer Retailer's Guide — by **Mick Taylor** of Professional Software Programmers Association

Pop-Up DeskSet Plus

PERFORMANCE APPRAISAL					
	POOR	FAIR	SATS	GOOD	EXC
Features					✓
Performance					✓
Documentation					✓
Ease of Use					✓
Error Handling					✓
Support					✓

Pop-Up telecommunication requires Hayes® compatible modem.
System requirements: IBM PC, XT, AT, 3270 PC, PCjr *or compatible.*

Pop-Up, Pop-Ups, DeskSet Plus, DeskSet are trademarks of Popular Programs, Inc. Sidekick is a trademark of Borland International.

Pop-Up DeskSet Plus: A complete set of Pop-Up utilities which help make your computer time more productive. Including:

Pop-Up Word: Deluxe text editor with Appointment Scheduler and Address Book. Provides word wrap with automatic reformat and handles unlimited file sizes.

Pop-Up Calculator: Full function calculator with 10 memories and a scrolling, printable tape display.

Pop-Up Financial Calculator: Goes beyond standard calculator to perform business and statistical calculations.

Pop-Up PopDOS: Gives you access to important DOS commands ***anytime.***

Pop-Up Calendar: Pop-Up one month or three months at a time to view dates from 1900 to 2027.

Pop-Up Alarm Clock: Reminds you of scheduled appointments and lets you run programs when you're not there.

Pop-Up Anything: Splits DOS into two sections. Run any application without exiting to DOS.

Pop-Up Voice: Automatically dials phone numbers on your screen.

Pop-Up TeleComm: Telecommunications that receives and transmits data at 300, 1200 and 2400 baud rates. Supports X-ON/X-OFF and X-MODEM protocols, PBX, long distance carriers, and automatically logs on to services — **all at a single keystroke.**

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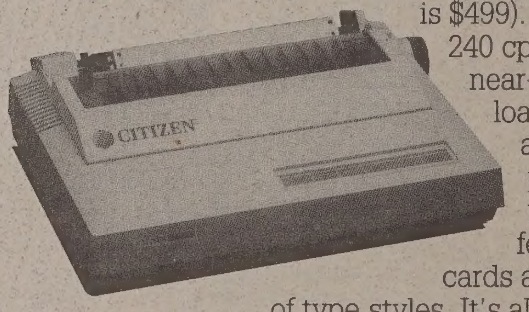

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